ORDER No. ACED0002222

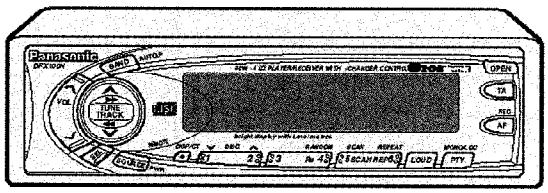
Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

COMPACT disc DIGITAL AUDIO

CQ-DFX100N

High-Power CD Player / RDS Receiver with Changer Control



Specification*

General	
Power Supply	DC 12V (11V - 16V), Test Voltage 14.4V, Negative Ground
Tone Controls	Bass ; ±12dB at 100Hz Treble ; ±12dB at 10kHz
Current Consumption	Less than 2.5A (CD mode, 0.5Wx4 Speaker)
Maximum Power Output	40W×4ch (at 4Ω)
Power Output	20Wx4 (DIN45 324, at 4Ω)
Speaker Impedance	4-8Ω
Pre-AMP Output Voltage	2.0V (CD mode)
Pre-AMP Output Impedance	600Ω
FM Stereo Radio	
Frequency Range	87.5 - 108.0MHz
Usable Sensitivity	6dB/μV (S/N 30dB)
Stereo Separation	35dB (at 1kHz)
MW Radio	
Frequency Range	531 - 1,602kHz
Usable Sensitivity	28dB/μV (S/N 20dB)
LW Radio	
Frequency Range	153 - 279kHz
Usable Sensitivity	32dB/μV (S/N 20dB)
CD Player	
Sampling Frequency	8 times over sampling
Pick-Up Type	Astigma 3-beam
Light Source	Semiconductor Laser
Wavelength	780nm
Frequency Response	20Hz to 20,000Hz (±1dB)
Signal to Noise Ratio	96dB
Wow and Flutter	Below measurable limits
Channel Separation	75dB
Dimensions** (W × H × D)	178×50×150mm
Weight**	1.6kg

* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimensions and Weight shown are approximate.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

CONTENTS

	Page
1 FEATUERS	2
2 REPLACEING THE FUSE	2
3 MAINTENANCE	2
4 RADIO ALIGNMENT	2
5 CD DECK ALIGNMENT	2
6 DIMENSIONS	2
7 OPERATING INSTRUCTIONS	3
8 WIRING CONNECTION	9
9 BLOCK DIAGRAM	10
10 TERMINALS DESCRIPTION	11
11 PACKAGE AND IC BLOCK DIAGRAM	13
12 REPLACEMENT PARTS LIST	17
13 EXPLODED VIEW (Unit)	22
14 CD PLAYER PARTS	23
15 EXPLODED VIEW (CD Deck)	24
16 WIRING DIAGRAM	25
17 SCHEMATIC DIAGRAM	31

1 FEATUERS

- 8bit-times over sampling 1bit/4-DAC system.
- Digital servo for reliable playback.
- PLL (Phase Locked Loop) synthesized tuning.
- 18-FM, 6-AM presets with preset scan.
- Intelligent volume control.
- Removable face plate.

2 REPLACEING THE FUSE

Use fuses of the same specified rating (15amps). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.

3 MAINTENANCE

Your products is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvents.

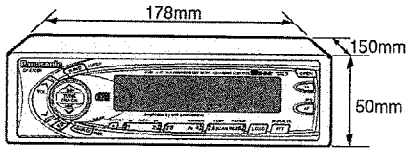
4 RADIO ALIGNMENT

Do not align the AM/FM package block. When the package block is necessary, it will be supplied already aligned at the factory.

5 CD DECK ALIGNMENT

This model has no servo alignment points because microcomputer controls the servo circuit.

6 DIMENSIONS



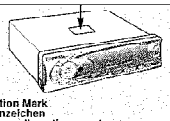
7 OPERATING INSTRUCTIONS

Label Indications and Their Locations
Warnetiketten und deren Anbringungsort
Indications portées les étiquettes et emplacement
Aanduiding van de labels en hun plaats
Varningsskyltama, och deras placering
Indicazioni delle etichette e le loro posizioni
Indicaciones de las etiquetas y su ubicación

VORSICHT!
UNSICHTBARE LASERSTRAHLUNG!
WENN ABDECKUNG GEÖFFNET IST,
NICHT DEM LASERSTRAHL AUSSETZEN.

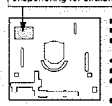
- APPAREIL À LASER DE CLASSE 1
- KLASS 1 LASER APPARAT
- LUOKAN 1 LASERPLAITE

CLASS 1
LASER PRODUCT



- Caution Mark
- Warnzeichen
- Marque d'avertissement
- Waarschuwingsteken
- Varningsmärke
- Etichetta di avvertimento
- Marka de advertencia

DANGER! Invisible laser radiation when open. Avoid direct exposure to beam.
ADVARSEL! Usynligt laserlys udstråles ved åbning. Undgå direkte bestråling.
VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättö-mälle lasersäteilylle. Älä kesto säteeseen.
VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhedslås brytes. Unngå eksponering for stråien.



- Deck Ass'y (Upper Side)
- Laufwerksicht (Oberseite)
- Assemblage de la table lecture (Côté supérieur)
- Dekkbevestig (Bovenkant)
- Däcksenhet (Topp)
- Gruppo della piastra (Lato superiore)
- Conjunto de la platina (Lado superior)

Contents

	Page
Precautions (ISO Connector)	4
Precautions	6
Laser Products	6
Power and Sound Controls	7
Radio Basics	8

Inhaltsverzeichnis

	Seite
Vorsichtsmaßnahmen (ISO-Stecker)	4
Vorsichtsmaßnahmen	24
Laserprodukte	24
Stromversorgung und Klangregler	25
Rundfunkempfang	26

Table des matières

	Page
Mesures de précaution (connecteur ISO)	4
Mesures de précaution	42
Appareils à laser	42
Interrupteur d'alimentation et commandes de réglage de la sonorité	43

Inhoudsopgave

	Bladzijde
Voorzorgsmaatregelen (ISO aansluiting)	4
Voorzorgen	60
Laserproducten	60
Stroomvoorziening en geluidsregeling	61
Basisbediening radio	62

Innehåll

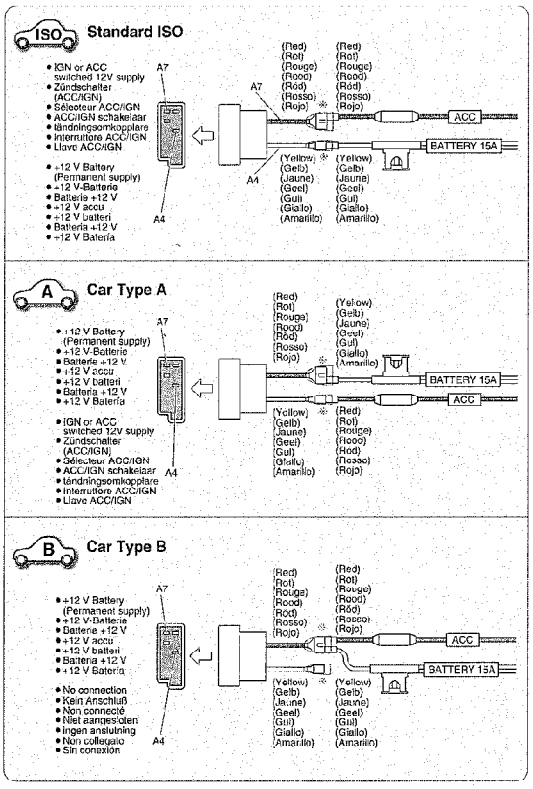
	Sida
Observera (ISO-kontakt)	4
Observera	78
Om laserprodukter	78
Ström- och ljudreglage	79
Grundläggande manövrering av radion	80

Contenuto

	Pag.
Precauzioni (Connettore ISO)	4
Precauzioni	96
Prodotti laser	96
Comandi di alimentazione e del suono	97
Funzionamento della radio	98

Indice

	Pag.
Precauciones (conector ISO)	4
Precauciones	114
Productos láser	114
Alimentación y controles del sonido	115
Operación básica de la radio	116



Precautions (ISO Connector)

- The pin arrangement of the power connector conforms to ISO standard.
- The pin arrangement of ISO connectors in some cars may differ from the ISO standard.
- Please check that the pin arrangement of the connector in your car conforms to ISO standard.
- For car types A and B, change the wiring of the red and yellow leads as shown at right.
- After connection, insulate the portions marked (✻) with insulating tape.

Note : For cars other than types A and B, please consult your local car shop.

Vorsichtsmaßnahmen (ISO-Stecker)

- Die Stiftanordnung des Versorgungssteckers entspricht dem ISO-Standard.
- Die Stiftanordnung der ISO-Stecker im manchen Fahrzeugen kann von dem ISO-Standard abweichen.
- Bitte stellen Sie sicher, daß die Stiftanordnung des Steckers in Ihrem Fahrzeug dem ISO-Standard entspricht.
- Im Falle der Anordnung für Auto A oder B die Anschlüsse der rot/gelben Kabel am Übertragungs-Steckverbinderblock (✻).
- Nach der Verkabelung sollte unbedingt der durch ✻ gekennzeichnete Teil mit Hilfe von Isolierbändern o.ä. isoliert werden.

Hinweis: Für andere als die Fahrzeugtypen A und B wenden Sie sich bitte an Ihre örtliche Werkstatt.

Mesures de précaution (connecteur ISO)

- La disposition des broches de connecteur d'alimentation est conforme aux normes ISO.
- La disposition des broches des connecteurs ISO de certaines voitures risque d'être différente par rapport aux normes ISO.
- Vérifier si la disposition des broches du connecteur de votre voiture est conforme aux normes ISO.
- En ce qui concerne les véhicules des types A et B, modifier le câblage des fils rouge et jaune comme indiqué ci-contre.
- Une fois le branchement réalisé, isoler les sections identifiées par le signe (✻) avec de l'adhésif isolant.

Remarque : En ce qui concerne les véhicules des types A et B, veuillez vous renseigner auprès de votre concessionnaire automobile habituel.

Voorzorgsmaatregelen (ISO aansluiting)

- De pennen van de stroomaansluiting voldoen aan de vereisten van de ISO standaard.
- De pennen van ISO aansluitingen in sommige auto's kunnen verschillen van de ISO standaard.
- Controleer of de pennen van de aansluiting in uw auto voldoen aan de ISO standaard.
- Voor auto's van de types A en B dienen de rode en gele draden gewijzigd te worden zoals rechts staat aangegeven.
- Na het aansluiten moeten de plekken die zijn aangegeven met (✻) afgeplakt worden met isolatieband.

Opmerkingen: voor auto's van andere types dan A en B dient u uw plaatselijke garage te raadplegen.

Observera (ISO-kontakt)

- Stiftens placering i strömkontakten överensstämmer med ISO-standard.
- I vissa bilar kan stiftens placering i ISO-kontakter skilja sig från ISO-standard.
- Kontrollera att stiftens placering i kontakten på din bil överensstämmer med ISO-standard.
- För b'typ A och B: ändra ledningsdragningen av de röda och gula kablarna så som visas till höger.
- Delar märkta med (✻) måste efter slutförda anslutningar isoleras med isoleringstejp.

Obs: Kontakta din lokala bilhandlare i fråga om bilar av annan typ än A och B.

Precauzioni (Connettore ISO)

- La disposizione dei pin del connettore di alimentazione è conforme allo standard ISO.
- La disposizione dei pin dei connettori ISO in alcune automobili potrebbe differire dallo standard ISO.
- Accertarsi che la disposizione dei pin del connettore dell'automobile sia conforme allo standard INSTALLATO.
- Per le macchine del tipo A e B, cambiare i collegamenti dei cavi rosso e giallo come mostrato a destra.
- Dopo il collegamento, isolare le parti contrassegnate collegate (✻) usando del nastro isolante.

Notas: Per le macchine diverse dal tipo A e B, rivolgersi a una autorivendita locale.

Precauciones (conector ISO)

- La disposición de las patillas del conector de alimentación satisface las normas ISO.
- La disposición de las patillas de los conectores ISO de algunos vehículos puede ser distinta de las no más ISO.
- Compruebe que la disposición de las patillas del conector de su vehículo satisfaga las normas ISO.
- Para los tipos A y B de vehículos, cambie las conexiones de los cables rojo y amarillo como se muestra a la derecha.
- Después de la conexión, aísle las partes marcadas con (✻) usando cinta aislante.

Notas: Para los vehículos que no sean de los tipos A y B, consulte a su taller mecánico local.

ENGLISH

Panasonic welcomes you to their constantly growing family of electronic products owners. We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

Precautions

Volume Level
For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.

Car Washing
To avoid electrical shorts which may cause fire, or other damage, do not expose this Product (including the speakers and CDs) to water or excessive moisture.

Car Ventilation
If your car is parked for several hours in direct sunlight, the temperature inside the car may become very high. It is advisable to drive the car and give the interior a chance to cool down before switching the unit on.

Power Supply
This Product is designed to be used in a car having a 12-Volt negative ground battery system.

Disc Mechanism
Do not insert coins or any small objects. Keep screwdrivers and other metallic objects away from the disc mechanism and disc.

Service
This Product is made of precision parts. Do not attempt to disassemble or adjust any parts. For repair, please consult your nearest authorized

Note: The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

Note: For remote control, buy the CA-RC61EX Remote Controller available as an optional accessory. Read the remote controller manual for instructions on how to operate the remote controller.

Laser Products

Caution: This product utilizes a laser.
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser products:

Wave Length	780 nm
Laser Power	No hazardous radiation is emitted with safety protection.

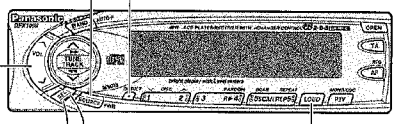
Do not take apart this unit or attempt to make any changes yourself.
This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet.
Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

Power and Sound Controls

Power

Turn the key in the ignition until the accessory indicator lights.
Power on : Press **[SOURCE]** (PWR).
Power off : Press **[SOURCE]** (PWR) again and hold.
The panel removal alarm sounds. (⇒ Page 19).

Note : When the power is switched on for the first time, a demonstration message appears on the display. **To cancel this display, press [•] (DISP/CT).**



Volume

[∧VOL] : Up
[∨VOL] : Down
Press and hold for rapid adjustment.

Volume Level (0 to 40)

Anti-Volume-Blast Circuit

When the power is switched off and on again, the volume slowly rises to the previous level.

Loudness

Press **[LOUD]** to enhance bass and treble tones at low or medium volume.
Press **[LOUD]** again to cancel.

Note: *The sound can be muted with the optional remote controller. (Read the remote controller manual's instructions.)*

Audio Mode

(Bass/Treble/Balance/Fader)

1. Press **[SEL]** to select the audio mode.
Modes change as follows:

Regular Mode ⇒ Volume ⇒ Bass ⇒ Treble ⇒ Balance ⇒ Fader ⇒ Regular Mode

2. Press **[∧VOL]** or **[∨VOL]** to change each level.

Volume (Up / Down) ⇒ Bass (Up / Down) ⇒ Treble (Up / Down) ⇒ Balance (Right / Left) ⇒ Fader (Front / Rear) ⇒ Volume

Note: If no operation takes place for more than 5 seconds in audio mode (2 seconds in Volume mode), the display return to Regular Mode.

Level Meter

1. Press and hold **[SEL]** to change to the display control mode. ("PATTERN" appears on the display.)

Press and hold [SEL] Press [SEL]
Regular Mode ⇒ Level Meter ⇒ Security Indicator ⇒ Regular Mode

(⇒ Page 19).

2. Press **[∧TUNE]** to select a level meter pattern. Patterns change as follows.

Pattern 1 ⇒ Pattern 2 ⇒ Pattern 3 ⇒ Pattern 4 ⇒ Pattern off ⇒ Pattern 1

(**[∨TUNE]**: opposite direction)

Preset Station Setting

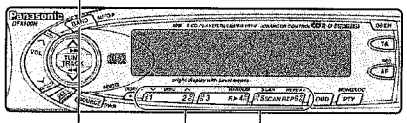
Up to 6 stations each can be saved in the FM1, FM2, FM3 and AM (LW/MW) preset station memories.

Caution: To ensure safety, never attempt to preset stations while you are driving.

① Band

Select a band. (⇒ Page 8)

Band



② Auto Station Preset

Press and hold **[BAND]** (AUTO•P) for more than 2 seconds (Auto Preset Memory).

- The 6 strongest available stations will be automatically saved in the memory under preset buttons **[1]** to **[6]**.
- Once set, the preset stations are sequentially scanned for 5 seconds each.

Manual Station Preset

(1) Use manual or seek tuning to find a station. (⇒ Page 8)
(2) Press and hold one of the preset buttons **[1]** to **[6]** until the display blinks once.

Band Preset Number

③ Tuning in a Preset Station

Press the corresponding preset button **[1]** to **[6]** to tune in a preset station.

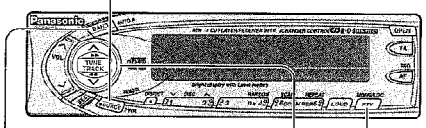
Note: You can change the memory presetting by repeating the above procedure.

Radio Basics

① Mode Selection

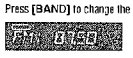
Press **[SOURCE]** to change to the radio mode.

Source: Radio ⇒ CD Player (When a CD is inserted) ⇒ CD changer control (When a CD changer is connected) ⇒ Radio



② Band

Press **[BAND]** to change the bands.



Band: FM1 ⇒ FM2 ⇒ FM3 ⇒ AM (LW/MW) ⇒ FM1

③ Manual Tuning

[∧TUNE] : Higher frequency.
[∨TUNE] : Lower frequency.

Seek Tuning

Press and hold **[∧TUNE]** or **[∨TUNE]** for more than 0.5 seconds, then release. Seeking will start.

④ Mono/Local Selection

MONO : Monaural reception. Select MONO to reduce noise when receiving a stereo broadcast.
LOCAL : Tunes in strong stations only.

FM broadcasts

Press and hold **[PTY]** (MONO/LOC) to change the mode. Release when at the desired point.

AM broadcast

Press **[PTY]** (MONO/LOC) to switch LOCAL mode on and off.

FM broadcast: MONO OFF LOCAL OFF ⇒ MONO ON LOCAL OFF ⇒ MONO ON LOCAL ON ⇒ MONO OFF LOCAL ON ⇒ MONO OFF LOCAL OFF

AM broadcast: LOCAL ON ⇒ LOCAL OFF ⇒ LOCAL ON

RDS (Radio Data System)

RDS Basics

The following functions are available when receiving RDS stations.

PS Display

(Program Service Name)

The name of station is displayed instead of the frequency.

CT Service

(Clock Time)

When receiving an RDS station, the CT (Clock Time) service automatically adjusts the time and date. "NO CT" is displayed in areas where CT service is not available.
(⇒ Page 13 for Clock Set)

AF

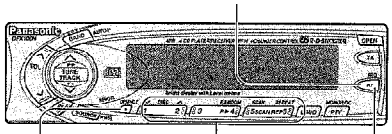
(Alternative Frequency)

When reception is poor, an RDS station broadcasting the same program is tuned in automatically.

AF Mode

Press **[AF]** to select one of the following AF modes:

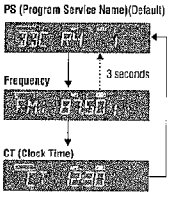
AF 1 Mode (Default) — Low level AF operating sensitivity.
AF 2 Mode — High level AF operating sensitivity.
AF OFF Mode — When the AF network of an RDS station is not required



Display Change

Press **[•]** (DISP/CT) to change the display as follows.

PS (Program Service Name)(Default) ⇒ Frequency (3 seconds) ⇒ CT (Clock Time) ⇒ PS (Program Service Name)(Default)



Auto Preset Memory

Auto preset of RDS stations works only when AF mode is on.

Best Station Research

Best Station Research is automatically activated to store the station with the best reception for each preset button.

PI (Program Identification) Seek

If best Station Research does not work properly and reception is poor when tuning in a preset station, press **the same preset button again.** PI Seek will search an AF station with good reception.

REG (Region) Mode

Changes the selection range of AF, Best Station Research and PI Seek.
Press and hold **[AF]** (REG) when AF mode is on.

REG ON
The frequency is changed only for programs within the region.
⇕
REG OFF
The frequency is changed also for programs outside the region.

Traffic Announcements

Some RDS FM stations periodically provide traffic information.

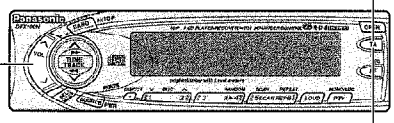
TP
(Traffic Program)
Broadcasting of traffic information

TA
(Traffic Announcements)
Radio announcements on traffic conditions

TA Mode

Press **[TA]** to to switch TA mode on and off.

TA on
↕
TA off



TA Volume Set
(Volume Level : 0 to 40)

Press **[∧VOL]** or **[∨VOL]** while receiving traffic announcements.
The TA volume differs from the regular volume (by up to 5 levels).

Muting in TA Mode

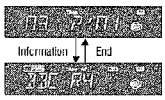
To listen only to Traffic Announcements while muting, press and hold **[TA]** for more than 2 seconds.
To cancel the muting TA on mode (muting in TA mode → TA mode), take either following two.

- Press [TA] again.
- Press **[∧VOL]** several times.

Note : To switch to TA off, press **[TA]** again and hold for more than 2 seconds.

TA in CD/CD Changer Mode

When TA is on, CD or CD changer playback will be interrupted by FM traffic announcements.



TP Auto Search

When reception of a TP station is poor, TP Auto Search will automatically search for a TP station with better reception.

Seek and Preset Station

TP Seek Tuning
Seek tunes only TP stations. (⇒ Page 8)
Auto TP Station Preset
The 6 strongest TP stations are saved in memory. (⇒ Page 9)
Tuning in a TP Preset Station (⇒ Page 9)

RDS (Radio Data System) (continued)

PTY Reception (Program Type)

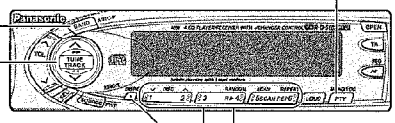
RDS FM stations provide a program type identification signal.
Example: news, rock, classical music, etc.

PTY Mode

Press **[PTY]** to switch PTY display mode on or off.

PTY on
↕
PTY off

When there is no corresponding program type, "NO PTY" is display



PTY Selection

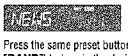
1. Press **[∧TUNE]** to change the program type as follows. (**[∨TUNE]** : opposite direction)

SPEECH → MUSIC → NEWS → AFFAIRS →
INFO → SPORT → EDUCATE → DRAMA →
CULTURES → SCIENCE → VARIED → POP M →
ROCK M → M.O.R.M → LIGHT M → CLASSICS →
OTHER M → WEATHER → FINANCE → CHILDREN →
SOCIAL A → RELIGION → PHONE IN → TRAVEL →
LEISURE → JAZZ → COUNTRY → NATIONAL →
OLDIES → FOLK M → DOCUMENT →

2. Select the desired program and press **[BAND]**. Seek will start to tune in to a station broadcasting the selected program type.

PTY Search

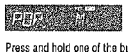
1. Select a program type by pressing the preset button.
The preset program type appears on the display for 5 seconds.
Example) Press preset button **[1]**.



2. Press the same preset button again (or press **[BAND]**) to tune in the desired program type station.
Example) Press preset button **[1]** again.

PTY Preset Change

1. Select a program type by using PTY Selection or pressing PTY Preset buttons.



2. Press and hold one of the buttons **[1]** to **[6]**.
Example) Press and hold preset button **[2]**.

PTY display in Swedish

Press **[•]** (DISP/CT) to switch the PTY display language as follows.

PTY Type Preset

Program types are stored in memory under preset buttons **[1]** to **[6]** s shown in the table below.
To tune in the desired program type, press any of preset buttons **[1]** to **[6]**.

Preset No.	Program Type	Display	
1	News	NEWS	NEWS
2	Speech	SPEECH	AFFAIRS / INFO EDUCATE / DRAMA CULTURES / SCIENCE VARIED / WEATHER FINANCE / CHILDREN SOCIAL A / RELIGION PHONE IN / TRAVEL LEISURE / DOCUMENT
3	Sport	SPORT	SPORT
4	Pop. Music	POP M	POP M
5	Classic Music	CLASSICS	CLASSICS
6	Other Music	MUSIC	ROCK M / M.O.R.M LIGHT M / OTHER M JAZZ / COUNTRY NATIONAL / OLDIES FOLK M

EON (Enhanced Other Networks)

When EON data is received, the EON indicator lights and the TA and AF functions are expanded as follows.

TA : Traffic information from the current and other network stations can be received.
AF : The frequency list of preset RDS stations is updated by EON data.

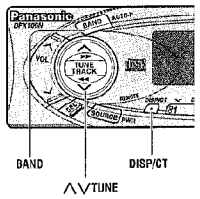
EON enables the radio to make fuller use of RDS information. It constantly updates the AF list of preset stations, including that currently tuned in to. For example, if you preset a station far from home, you will later be able to receive the same station at an alternative frequency, or any other station serving the same program. EON also keeps track of locally available TP stations for quick reception.

Emergency Announcement Reception

When an emergency announcement is broadcast, the unit is automatically switched to receiving that broadcast. If this happens in a mode other than radio mode (CD mode, CD Changer mode) or in Muting in TA mode, "ALARM" blinks on the display.

Clock Set

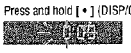
When RDS CT service is not available, set the clock as follows.



AM Band

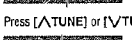
1. Press **[BAND]** to change to AM band.

2. Press **[•]** (DISP/CT)



Hours

3. Press and hold **[•]** (DISP/CT)



4. Press **[∧TUNE]** or **[∨TUNE]**

Minutes

5. Press **[•]** (DISP/CT)

6. Press **[∧TUNE]** or **[∨TUNE]**

7. Press **[•]** (DISP/CT)

Note : Hold **[∧TUNE]** or **[∨TUNE]** to change numbers rapidly.

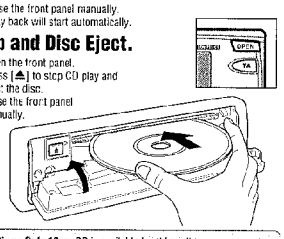
CD Player and CD Changer

Disc Insert and Playback

❶ Open the front panel.
❷ Insert a disc.
❸ Close the front panel manually.
Play back will start automatically.

Stop and Disc Eject.

❶ Open the front panel.
❷ Press [⏏] to stop CD play and eject the disc.
❸ Close the front panel manually.



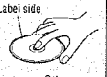
Caution: Only 12cm CD is available for this unit.

ONLY USE DISCS CARRYING THE LABEL SHOWN ON THE RIGHT

COMPACT disc DIGITAL AUDIO

How to hold the CD
- Do not touch the underside of the disc.
- Do not make scratches on the disc.
- Do not bend disc.
- When not in use, keep CD in the case.

Label side



Do not use irregularly shaped CDs

Heart-Shaped

Octagon

Do not leave discs in the following places:
- Direct sunlight
- Dirty, dusty and damp area
- Near car heaters
- Seats and dashboards

Disc Cleaning
Use a dry, soft cloth to wipe from the center outward.

<Right>

<Wrong>

Caution on New Discs
A new disc may have rough edges on its inner and outer perimeter. These may cause malfunction.

Remove the rough edges using a pencil, etc.

Rough edge

Listening to a CD

Mode Selection

Press **[SOURCE]** to change to the CD or CD changer mode.

Source
↓
Radio
↓
CD Player (When a CD is inserted)
↓
CD changer control (When a CD changer is connected)

Track Selection

[▶▶TRACK]: Advance to the next track.
[◀◀TRACK]: Back to beginning of the current track.
Back to previous track. (Press twice)

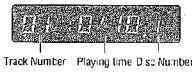
Track Search

Press and hold .....
[▶▶TRACK]: Fast forward
[◀◀TRACK]: Fast backward
Release to resume the regular CD or CD changer play.

Random Play	Track
Scan Play	Track
	Disc (Only for CD Changer)
Repeat Play	Track

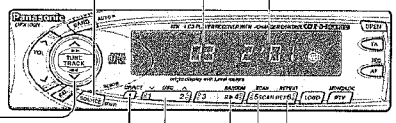
Note: The CD changer functions are designed for an optional CD changer unit.

<CD Changer Display>



<CD Player Display>
Track Number Playing time

Track Number Playing time Disc Number



Random Scan Repeat

Disc Selection (Only for CD Changer)

[1] (∧DISC): Previous disc.
[2] (∨DISC): Next disc.

Display Change

Press [▪] (DISP/CT) to switch to the clock display.
Press again to cancel.

- Press [4] (R►).
  All tracks (on all discs in the magazine*) are played in random order.
- Press again to cancel.

(*: CD changer)

- Press [5] (SCAN).
  The first 10 seconds of each track on the disc are played in sequence.
- Press again to cancel.

- Press and hold [5] (SCAN) for more than 2 seconds.
  The first track of all discs in the magazines is played for 10 seconds each.
- Press again to cancel.

- Press [6] (REP).
  The current track is repeated.
- Press again to cancel.

Error Display Messages for CD/CD Changer

CD is dirty or inverted. The disc will be ejected automatically.

CD is scratched. The disc will be ejected automatically.

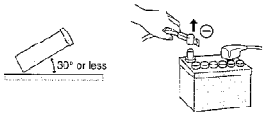
CD stops operating for some reason. Please eject the CD. If the error message E3 is still displayed, please turn off the car engine (ACC off) and remove the fuse from the battery lead (yellow) for 1 minute or more. Then reinstall the fuse.

There is no disc in the magazine. (Only for CD changer)

Installation

Preparation

- Before installation, check the radio operation with antenna and speakers.
- Disconnect the cable from the negative (−) battery terminal (see caution below).
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.



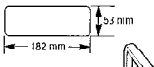
30° or less

Caution: Do not disconnect the battery terminals of a car with trip or navigational computer since all user settings stored in memory will be lost. Instead take extra care with installing the unit to prevent shorts.

Dashboard Installation

Installation Opening

The unit can be installed in any dashboard having an opening as shown at right. The dashboard should be 4.5 mm - 6 mm thick in order to be able to support the unit.



182 mm

5 mm

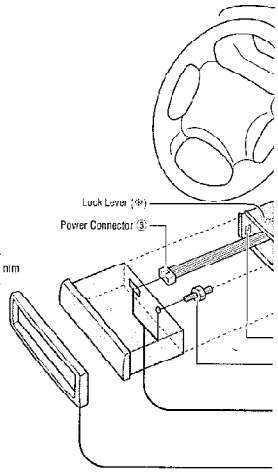
Installation Precautions

This product should be installed by a professional installer, if possible.
In case of difficulty, please consult your nearest authorized Panasonic Service Center.

1. This system is to be used only in a 12-volt, DC battery system (car) with negative ground.
2. Follow the electrical connections carefully (⇒ Page 20). Failure to do so may result in damage to the unit.
3. Connect the power lead after all other connections are made.
4. Be sure to connect the battery lead (yellow) to the positive terminal (+) of the battery or fuse block (BAT) terminal.
5. Insulate all exposed wires to prevent short circuiting.
6. Secure all loose wires after installing the unit.
7. Please carefully read the operating and installation instructions of the respective equipment before connecting it to this unit.

- We strongly recommend that you wear gloves for installation work to protect yourself from injuries.

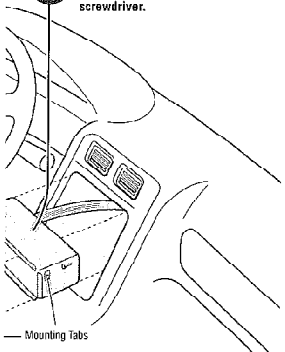
First complete the electrical connections, and then check them for correctness. (⇒ Page 20)



Lock Lever (※)
Power Connector ③

- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.

❶ Insert Mounting Collar ① into the dashboard, and bend the mounting tabs out with a screwdriver.

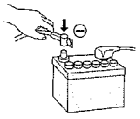


Mounting Tabs
Mounting Bolt ②

❷ Secure the rear of the unit.
After fixing Mounting Bolt ② and Power Connector ③, fix the rear of the unit to the car body by either method (a) or (b) shown at right.

❸ Insert Trim Plate ⑤.

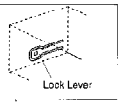
❹ After installation reconnect the negative (−) battery terminal.



Supplied Hardware

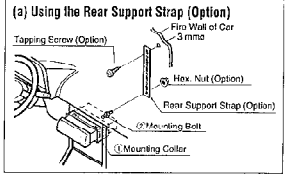
No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Mounting Bolt (5 mm⌀)		1
③	Power Connector		1
④	Removable Face Plate Case		1
⑤	Trim Plate		1
⑥	ISO Antenna Adaptor		1

Make sure that the lock lever (※) is flush with the mounting collar (not projecting outward).



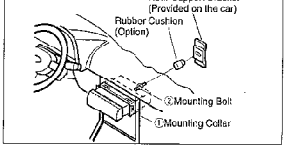
Lock Lever

(a) Using the Rear Support Strap (Option)



Tapping Screw (Option)
Fire Wall of Car
3 mm⌀
Hex. Nut (Option)
Rear Support Strap (Option)
②Mounting Bolt
①Mounting Collar

(b) Using the Rubber Cushion (Option)



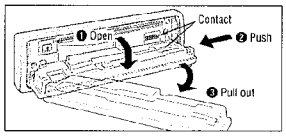
Rear Support Bracket (Provided on the car)
Rubber Cushion (Option)
②Mounting Bolt
①Mounting Collar

Installation (continued)

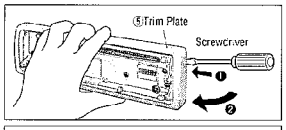
To Remove the Unit

1. Remove the removable face plate.
   (a) Open the face plate.

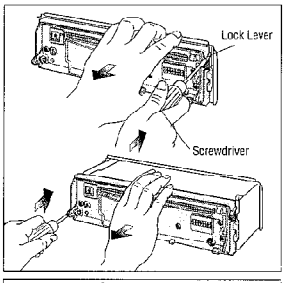
   (b) Push the face plate to either the right or left, then pull it out toward you.



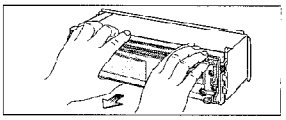
2. Remove the trim plate ⑤ with a screwdriver.



3. Pull out the unit while pushing down the lock lever with a screwdriver.



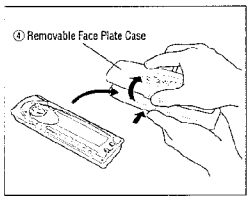
4. Remove the unit pulling with both hands.



Cautions:
- Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
- If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.
- Do not apply a strong downward force onto the face plate and do not put anything on it while it is open, or it might be damaged.

Anti-Theft System

This unit is equipped with a removable face plate. Removing this face plate makes the radio totally inoperable. The security indicator will blink.



Place Removable Face Plate into Case

❶ Switch off the power of the unit.

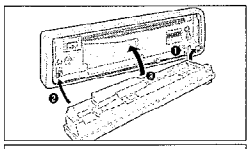
❷ Remove the removable face plate. (⇒ Page 18.)

❸ Gently press the bottom of the case and open the cover. Place the face plate into the case and take it with you when you leave the car.

Cautions:
- This face plate is not water-proof. Do not expose it to water or excessive moisture.
- Do not remove the face plate while driving your car.
- Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.

Install Removable Face Plate

❶ Fit the face plate with its right or left hole on one of the pins provided on the main unit.
❷ Fit the other hole on the other pin applying slight pressure.
❸ Move the face plate up and down a few times to make sure it is secure. Then close the front panel and press down the right side of the face plate until it clicks into place.

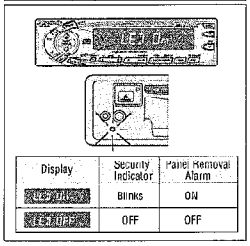


Security Indicator

The security indicator blinks when the removable face plate is removed from the unit.

❶ Press and hold **[SEL]** to change to display control mode. ("PATTERN" is displayed.) (⇒ Page 7)
❷ Press **[SEL]**. "LED On" or "LED OFF" is displayed.
❸ Press **[∧TUNE]** or **[∨TUNE]** to turn the security indicator on or off. (LED ON or OFF).

❹ The security indicator blinks when the removable face plate is removed.



Display	Security Indicator	Panel Removal Alarm
	Blinks	ON
	OFF	OFF

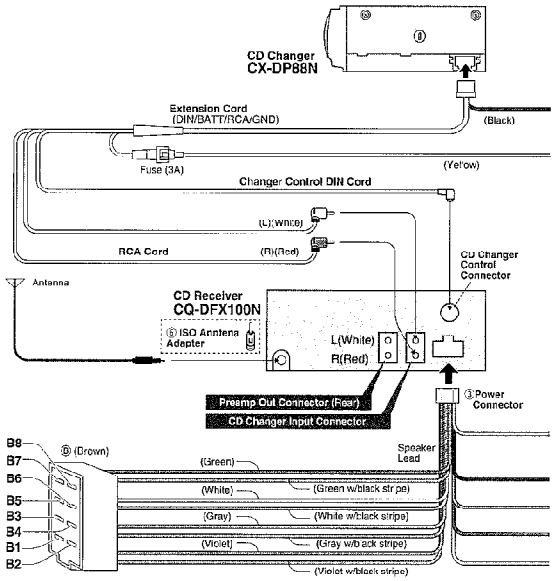
Panel Removal Alarm

This alarm sounds to warn you not to forget to remove the panel before leaving your car. This function is activated when the security indicator is on.

Electrical Connections

Cable Wiring Diagram

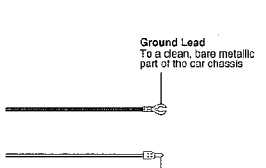
Example : Connection with CD changer CX-DP88N (Option).



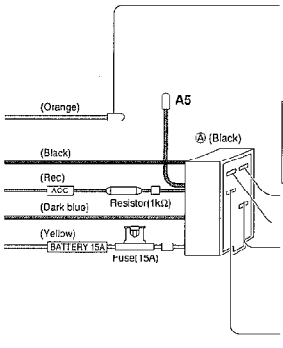
Loudspeakers (connector ⑧ : B1-B8)

	Left +	Left -	Right +	Right -
Front	B5 (White)	B6 (White w/black stripe)	B3 (Gray)	B4 (Gray w/black stripe)
Rear	B7 (Green)	B8 (Green w/black stripe)	B1 (Violet)	B2 (Violet w/black stripe)

Cautions:
- **Check the connectors provided on your car (see note on page 4 and 5) before connecting the system.**
- This unit is designed for use in a car having a 12-volt negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Strip about 5 mm of the lead ends for connection (only non-ISO connector cords).
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires to prevent short circuiting with the car chassis. Bundle all cables, and prevent cable terminals from touching any metal parts.



- This unit can be connected to an optional CD changer (CX-DP9061/DP9060EN, CX-DP801/DP8C3EN, CX-DP600EN/AEN or CX-DP601EN) and optional extension cord.
- For details consult your nearest authorized Panasonic Dealer.
- For connection to a CD changer, refer to the operating instructions of the CD changer (CX-DP9061/DP9060EN, CX-DP801/803EN, CX-DP600EN/AEN or CX-DP601EN).



C1 : (Orange)
Telephone Mute Lead (*)
Connect to the car telephone mute lead.
Note: The telephone mute lead is only for connection to the radio mute lead. Output other than telephone will not be muted
Navi Mute Lead (**)
To the Navi Mute lead of the Panasonic car navigation system.

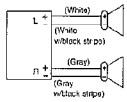
* Telephone Mute
The sound from the speakers cannot be heard while the telephone conversation is in progress.
** Navi Mute
The sound from the speakers cannot be heard while the navigation guide is on.

A8 : Ground Lead (Black)
To a clean, bare metallic part of the car chassis
A7 : Power Lead (ACC or IGN) (Red)
To ACC power, +12VDC
A5 : (Dark blue)
Motor Antenna Relay Control Lead
(To Motor Antenna) (Max. 500mA)
This lead is not intended for use with a switch actuated power antenna.
Amp.Relay Control Power Lead
This lead is for connection to a Panasonic power amplifier.
A4 : Battery Lead (Yellow)
To the car battery, continuous + 12V DC

Speaker Connections

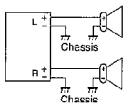
Caution: Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.

<Right>

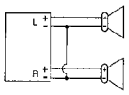


- Use ungrounded speaker only.
- The maximum speaker output should be 40 W or more. (If used with the optional power amplifier, the speaker output should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 – 8 Ω.
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

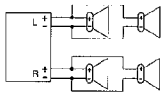
<Wrong>



- Never connect the speaker cord to the body of the car.



- Do not use a 3-wire type speaker system having a common earth lead.



- Do not connect more than one speaker to one set of speaker leads.

Fuse

Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.
If the replacement fuse fails, contact your nearest authorized Panasonic Service Center.

Maintenance

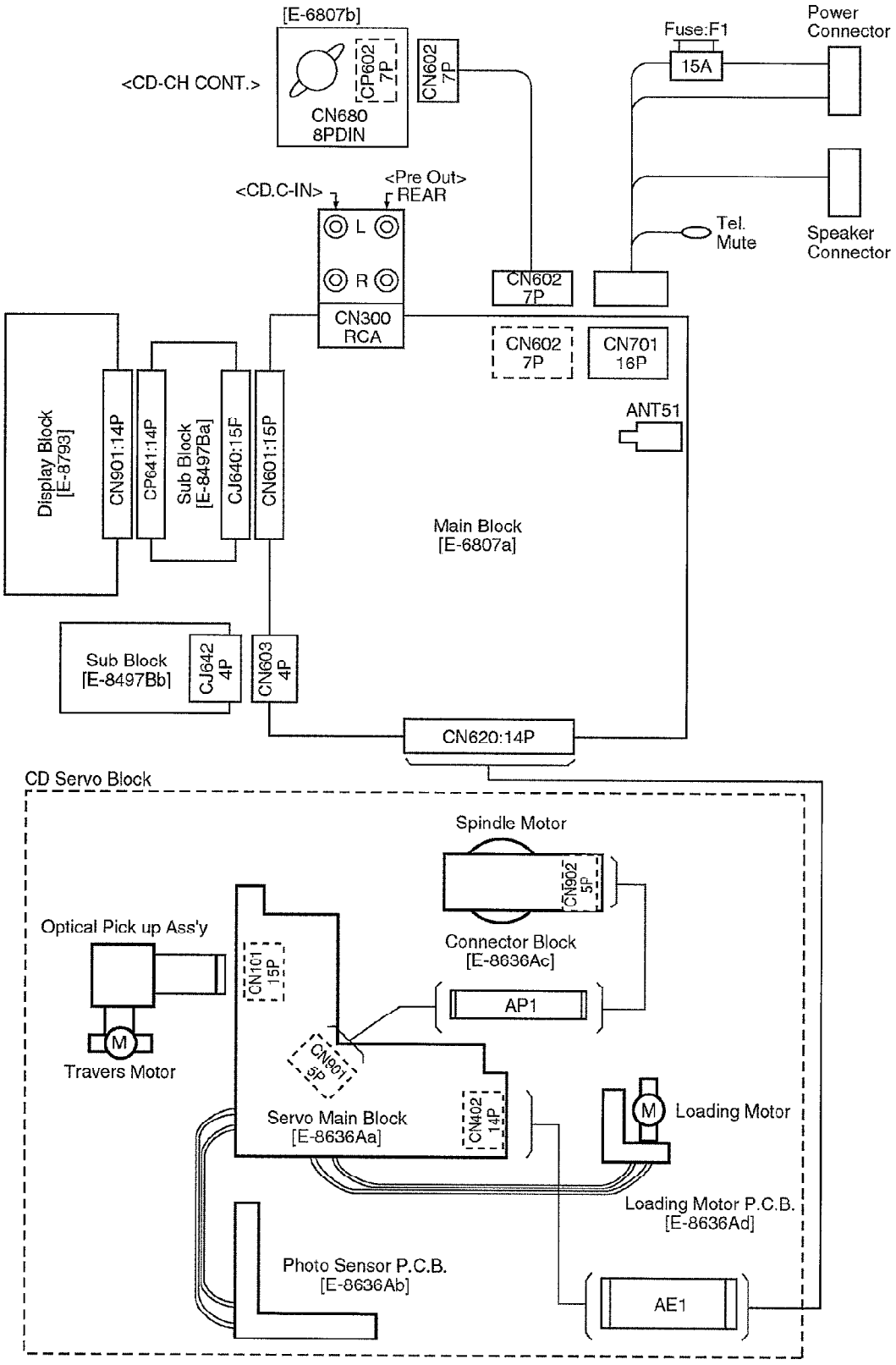
Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

Specifications

General		FM Stereo Radio	
Power Supply	: DC 12 V (11 V - 16 V), Test Voltage 14.4 V, Negative Ground	Frequency Range	: 87.5 - 108 MHz
		Usable Sensitivity	: 6 dBf/µV (S/N 30 dB)
Tone Controls	: Bass; ±12 dB at 100 Hz	Stereo Separation	: 35 dB (at 1 kHz)
	Treble; ±12 dB at 10 kHz	**MW Radio**	
Current Consumption	: Less than 2.5 A (CD mode, 0.5 W 4-Speaker)	Frequency Range	: 531 - 1,602 kHz
		Usable Sensitivity	: 28 dB/µV (S/N 20 dB)
Maximum Power Output	: 40 W x 4 (at 4 Ω)	**LW Radio**	
Power Output	: 20 W x 4 (DIN45 324, at 4 Ω)	Frequency Range	: 153 - 279 kHz
		Usable Sensitivity	: 32 dB/µV (S/N 20 dB)
Speaker Impedance	: 4 - 8 Ω	**CD Player**	
Pre-Amp Output Voltage	: 2 V (CD mode)	Sampling Frequency	: 8 times oversampling
Pre-Amp Output Impedance	: 600 Ω	DA Converter	: MASH+1 bit/4 DAC System
Dimensions (Main Unit)	: 178(W) x 50(H) x 150(D) mm	Error Correction System	: Panasonic Super Decoding Algorithm
Weight (Main Unit)	: 1.6 kg	Pick-Up Type	: Astigma 3-beam
		Light Source	: Semiconductor laser
		Wavelength	: 780 nm
		Frequency Response	: 20 Hz - 20 kHz (±1 dB)
		Signal to Noise Ratio	: 95 dB
		Total Harmonic Distortion	: 0.01 % (1 kHz)
		Wow and Flutter	: Below measurable limits
		Channel Separation	: 75 dB

Note: Specifications and design are subject to modification without notice due to improvements.

8 WIRING CONNECTION

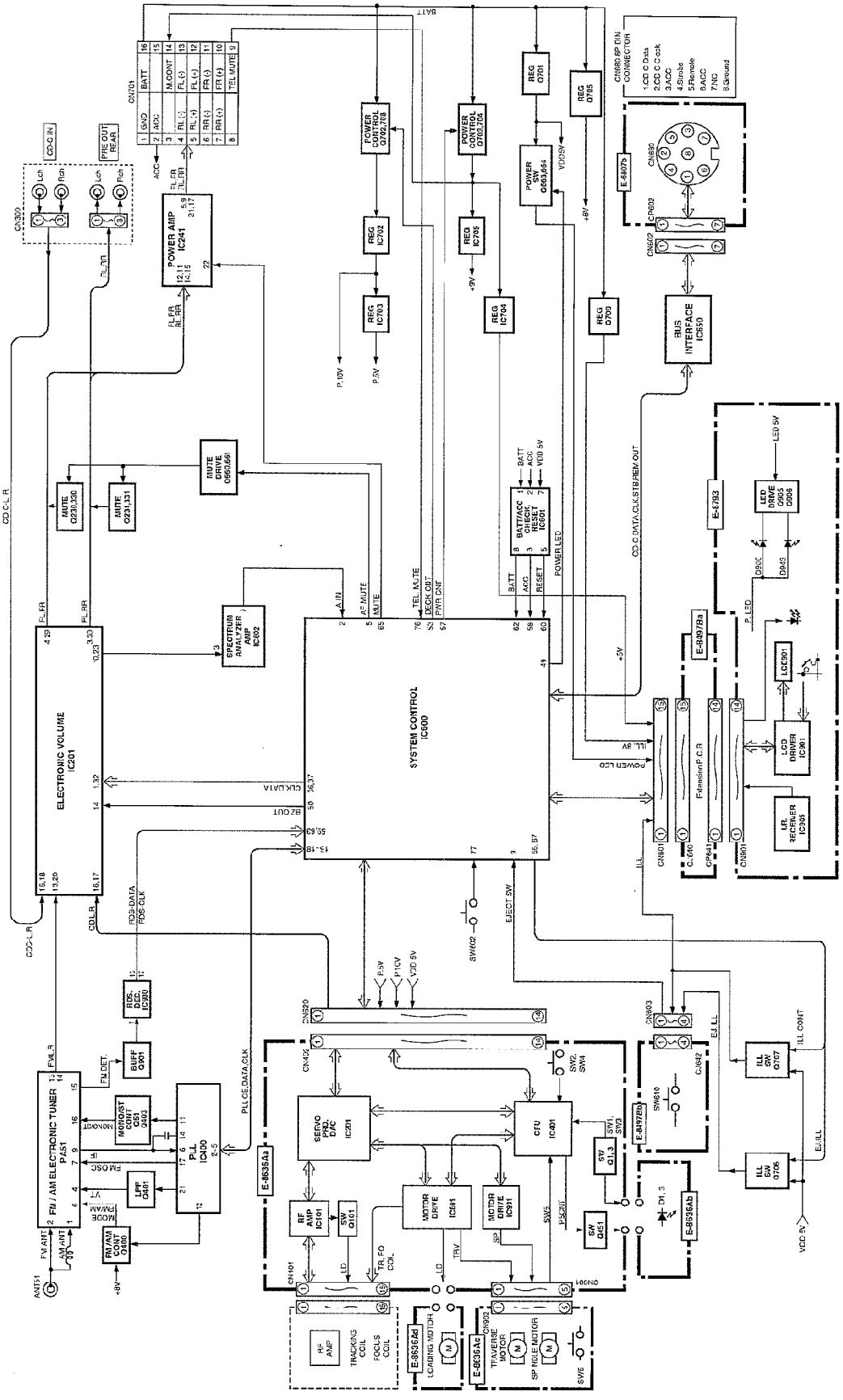


<Note> :

□ ·····This mark shows a Ref. No. of connector

[ ] ·····This mark shows a mounting position of connector.

9 BLOCK DIAGRAM



10 TERMINALS DESCRIPTION

10.1. Main Block

IC600 : C2BBGF000108

Pin No.	Port	Description	I/O	(V)
1	INIT C	Initial C	I	0
2	A-IN	Spectrum analyzer data	I	3.8
3	EJECT	Eject SW input	I	4.7
4	AVSS	Analog ground	-	0
5	AF MUTE	AF mute	O	0
6	NC	No connection	-	-
7	AVREF	Reference voltage	-	4.5
8	CD-SO	CD data	I	4.5
9	CD-SI	CD data	O	4.9
10	CD-SCK	CD clock	O	4.9
11	CD.C DATA	CD changer data	O	0
12	N.C.	No connection	-	-
13	CD.C CLK	CD changer clock	I	0
14	REM OUT	CD changer remote control	O	4.6
15	PLL CE	PLL controller chip enable	O	0
16	PLL DATA (MI)	Data from PLL	I	5.1
17	PLL DATA (MO)	Data for PLL	O	0
18	PLL CLK	Clock for PLL	O	4.8
19	S.HDB	Not used	-	-
20	CD RESET	CD reset	O	4.9
21	N.C.	No connection	-	-
22	N.C.	No connection	-	-
23	N.C.	No connection	-	-
24	N.C.	No connection	-	-
25	N.C.	No connection	-	-
26	CD ON	CD on/off control	O	0
27	SW3	CD mute	I	0
28	N.C.	No connection	-	-
29	SW2	CD sw2 input	I	0
30	CD.C	Not used	-	-
31	CH 1/2	Not used	-	-
32	N.C.	No connection	-	-
33	VSS	Ground	-	0
34	N.C.	No connection	-	-
35	ST	FM stereo detection	I	1.7
36	IC2-CLK	Electronic volume clock	O	4.6
37	IC2-DATA	Electronic volume data	I/O	5.2
38	LED	Warming alarm LED control	O	5.2
39	EJ.ILL	Eject illumi. control	O	4.8
40	CFL OFF	Not used	-	-
41	LCD-DI	LCD data input	O	0
42	LCD-DO	LCD data output	I	4.5
43	LCD-CLK	LCD clock	O	0
44	LCD-CE	LCD chip enable output	O	0
45	STBY	Amp stand-by	O	5.0
46	NC	No connection	-	-
47	NC	No connection	-	-
48	NC	No connection	-	-
49	POWER.LED	Power LED control	O	4.8
50	BZOUT	BEEP output	O	0
51	INV CONT2	Not used	-	-
52	INV CONT1	Not used	-	-
53	DECK.CNT	Deck power control	O	4.9
54	NC	No connection	-	-
55	FP OPN/CLS	Front panel open/close	I	5.1
56	ILL CONT	Illumi. control	O	4.8
57	PWR CNT	Power control	O	4.8
58	ACC	ACC detection	I	4.4
59	RDS DATA	RDS data input	I	2.5
60	/RESET	Reset input	I	4.4
61	REM	Remocon data input	I	4.1
62	BATT	Battery detection	I	4.3
63	RDS CLK	RDS clock input	I	2.5
64	CD.C.STB	CD changer strobe input	O	0
65	MUTE	Mute control	O	0
66	N.C.	No connection	-	-
67	VSS	(Connecting to ground)	-	0
68	VDD	+5V power supply	-	4.8
69	X2	Crystal oscillator	-	2.8
70	X1	Crystal oscillator	-	1.9
71	VSS	Ground	-	0
72	SUB.X2	Not used	-	-
73	SUB.X1	(Connecting to ground)	-	0
74	AVDD	+5V power supply	-	4.8
75	AVREF	(Connecting to VDD)	-	4.8
76	TEL MUTE	Telephone mute	I	5.0
77	PANEL	Panel detection	I	0.4
78	SD	B/S detection	I	0.4
79	INIT A	Initial value A	I	0
80	INIT B	Initial value B	I	4.8

Note :

Voltage measuerments are with respect to ground, with a voltmeter (Internal resistance : 10M ohms.)

10.2. Display Block

IC901 : YEAMLC75854T

Pin No.	Port	Description	I/O	(V)
1-39	S1-39	LCD segment data	O	2.5
40-43	COM1-4	LCD common	O	2.5
44,45	KS1, 2	Not used	-	-
46-49	KS3-6	Key strobe	O	0.9
50-54	KI1-5	Key data	I	0
55	TEST	(Connecting to ground)	-	0
56	VDD	+5V power supply	-	5.1
57	VDD1	VDD1 filter terminal	-	3.3
58	VDD2	VDD2 filter terminal	-	1.7
59	VSS	Ground	-	0
60	OSC	Oscillator terminal	-	3.9
61	DO	Key data output	O	4.4
62	CE	LCD driver chip enable	I	0
63	CLK	LCD clock	I	0
64	DI	LCD data	I	0

10.3. CD Servo Block

IC201 : MN662748RPMF

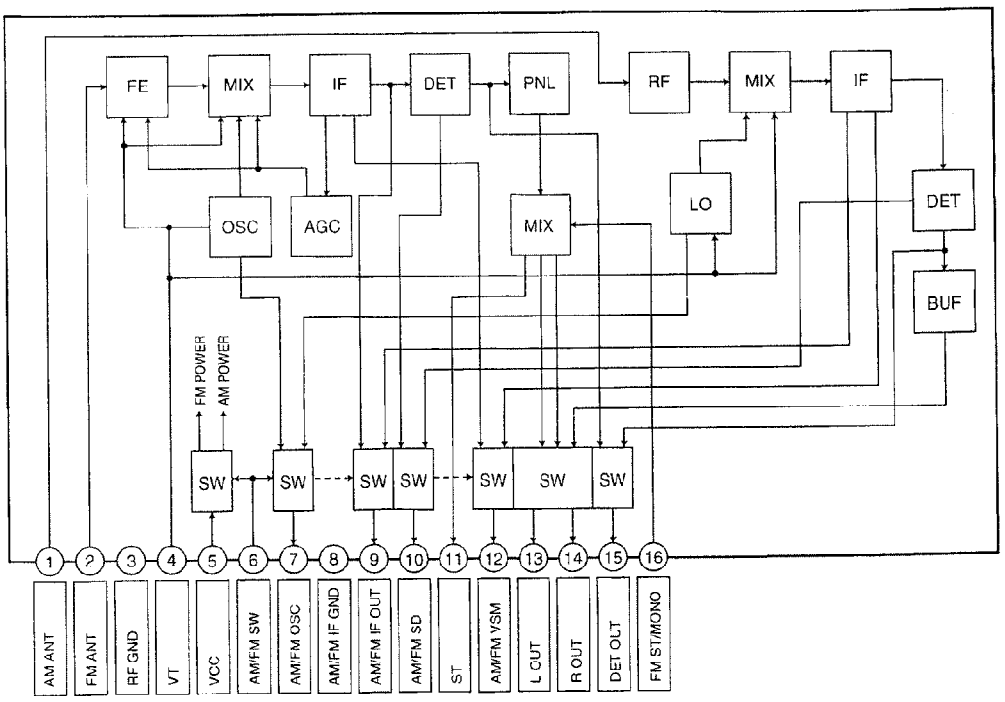
Pin No.	Port	Description	I/O	(V)
1	BCLK	Not used	-	-
2	LRCK	Not used	-	-
3	SRDATA	Not used	-	-
4	DVDD	+5V digital power supply	-	5.0
5	DVSS1	Digital ground	-	0
6	TX	Not used	-	-
7	MCLK	MPU command clock	I	0
8	MDATA	MPU command data	I	0
9	MLD	MPU command load	I	0
10	SENSE	Sense signal	O	0
11	/FLOCK	Focus servo lock	O	0
12	/TLOCK	Tracking servo lock	O	4.9
13	BLKCK	Not used	-	-
14	SQCK	Q code external clock	I	4.9
15	SUBQ	Q code output	O	2.5
16	DMUTE	DSP mute	I	0
17	STAT	DSP Status output	O	3.1
18	/RST	Reset input	I	4.9
19, 20		Not used	-	-
21	TRV	Forced traverse output	O	2.5
22	TVD	Traverse drive output	O	2.5
23	PC	Spindle motor control	O	0
24	ECM	Spindle motor drive	O	2.5
25	ECS	Spindle motor drive	O	2.5
26	KICK	Kick pulse output	O	2.5
27	TRD	Tracking motor drive	O	2.5
28	FOD	Focus motor drive	O	2.5
29	VREF	D/A reference voltage	I	2.5
30	FBAL	Focus balance adjust	O	2.5
31	TBAL	Tracking balance adjust	O	2.5
32	FE	Focus error signal	I	2.5
33	TE	Tracking error signal	I	2.5
34	RFENV	RF envelope signal	I	2.5
35	VDET	Vibration detection	I	0
36	OFTR	Off track signal	I	0
37	TRCRS	Track closs signal	I	2.1
38	/RFDET	RF detection signal	I	0
39	BDO	Drop out signal	I	0
40	LDON	Laser on/off control	O	4.5
41	PLLF2	Not used	-	-
42	TOFS	TE offset	O	2.5
43	WVEL	Not used	-	-
44	ARE	RF signal	I	1.7
45	IREF	Reference current input	I	1.6
46	DRF	DSL bias	I	0
47	DSLF	DSL loop filter	I/O	2.4
48	PLLF	PLL loop filter	I/O	1.8
49	VCOF	Not used	-	-
50	AVDD2	+5V analog power supply	-	5.0
51	AFSS2	Analog ground	-	0
52	EFM	Not used	-	-
53	PCK/DSLB	DSL bias	I	2.4
54	VCOF2	Tracking offset	O	2.5
55	SUBC	Not used	-	-
56	SBCK	(Connecting to ground)	-	-
57	VSS	Ground	-	0
58	X1	Crystal oscillator	I	1.7
59	X2	Crystal oscillator	O	2.3
60	VDD	+5V power supply	-	5.0
61,62	-	Not used	-	-
63	FCLK	Not used	-	-
64	IPFLAG	Not used	-	-
65	FLAG	Not used	-	-
66-69	-	Not used	-	-
70	IOSEL	(Connecting to ground)	I	0
71	/TEST	(Connecting to ground)	I	0
72	AVDD1	+5V analog power supply	-	4.9
73	OUTL	Audio Lch output	O	4.9
74	AVSS1	Analog ground	-	0
75	OUTR	Audio Rch output	O	4.9
76	RSEL	(Connecting to ground)	-	0
77	CSEL	(Connecting to ground)	-	0
78	PSEL	(Connecting to ground)	-	0
79	MSEL	(Connecting to ground)	-	0
80	SSEL	mode select	I	5.0

IC401 : MN101C117AD

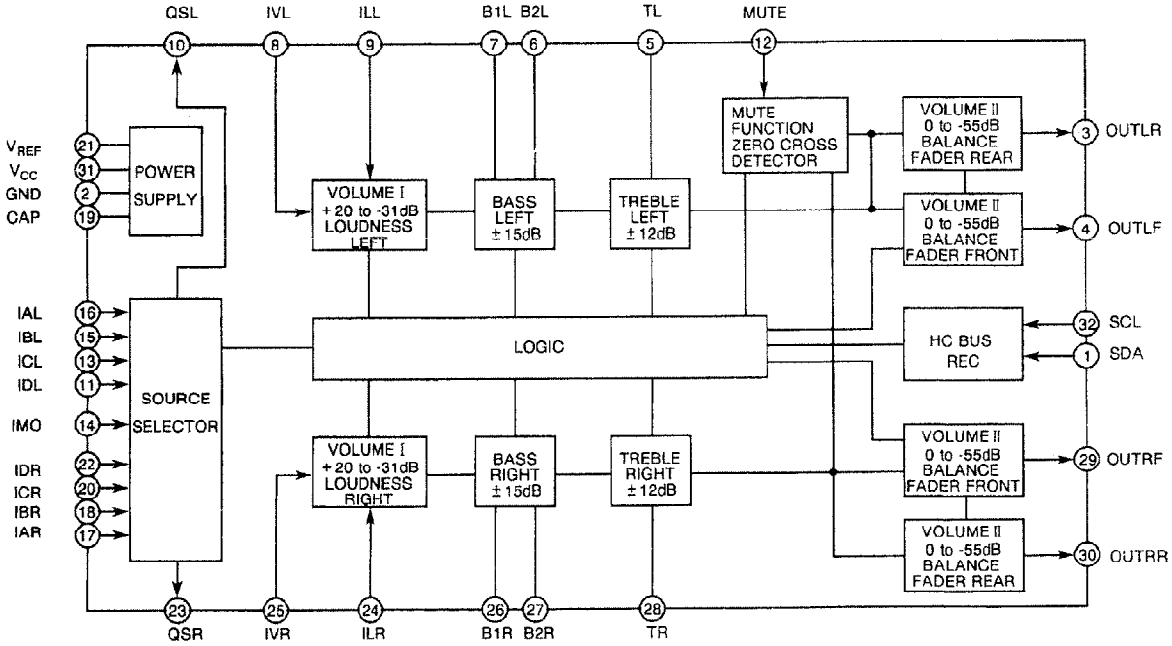
Pin No.	Port	Description	I/O	(V)
1	MASHON	Servo IC OSC control	O	5.0
2	P82	No connection	-	-
3	P81	No connection	-	-
4	P5CNT	LED power control	O	0
5	Q1	Photo sensor signal (DISC IN)	I	4.5
6	Q3	Photo sensor signal (DISC OUT)	I	4.2
7	Q6	Photo sensor signal (Option)	I	5.0
8	SW4	Clamp SW signal	I	0
9	SW5	Inner SW signal	I	5.0
10	SW2	Feeder arm SW	I	5.0
11	PA6	(Connection to ground)	-	0
12	PA7/IFR	(Connecting to ground)	I	0
13	VDD	+5V power supply	-	5.0
14	OSC2	Crystal oscillator	-	5.0
15	OSC1	Crystal oscillator	-	3.3
16	VSS	Ground	-	0
17	NC	No connection	-	-
18	SOMI	CD control data	O	3.2
19	SIMO	CD control data	I	3.8
20	SCLM	Data shift clock	I	5.0
21	AMUTE	Audio signal mute	O	0
22	BD0	Drop out signal	I	0
23	PC1	Loading motor driver control	O	5.0
24	PS2	Focus/Tracking driver control	O	0
25	VDET	Vibration detecting signal	I	0
26	P14	No connection	-	-
27	CDON	CD on signal	I	5.0
28	IRQ1.SENSE	(Connecting to groung)	-	0
29	IRQ2	(Connecting to ground)	-	0
30	LOD	Loading motor control	-	2.6
31	TRV	Traverse motor control	-	2.5
32	/PRST	Servo IC reset	O	5.0
33	STAT	Status signal	I	4.0
34	DMUTE	DSP mute	O	0
35	SUBQ	Sub code Q data	I	2.6
36	SQCK	Sub code Q clock	O	5.0
37	/TLOCK	Tracking servo lock	I	0
38	/FLOCK	Focus servo lock	I	0
39	NRST	reset input	I	5.0
40	MMOD	(Connecting to ground)	-	0
41	SENSE	Sense signal	I	0
42	MLD	Command load	O	5.0
43	MDATA	Command data	O	0.9
44	MCLK	Command clock	O	4.6

11 PACKAGE AND IC BLOCK DIAGRAM

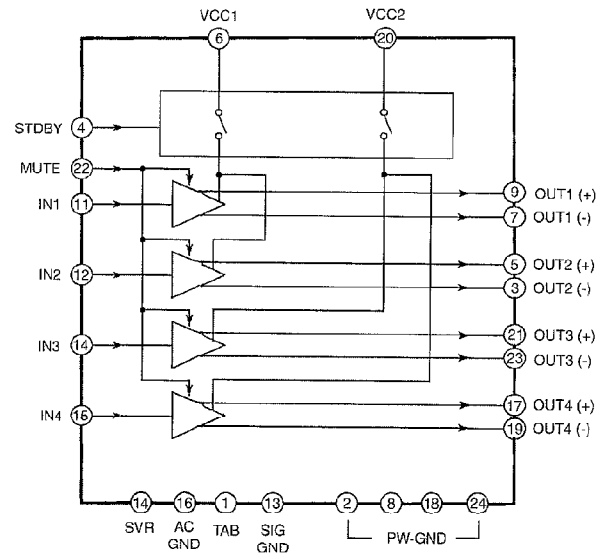
11.1. Main Block



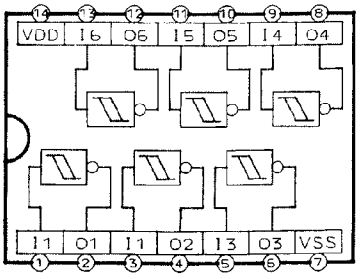
PA51 : YEAU03E052C



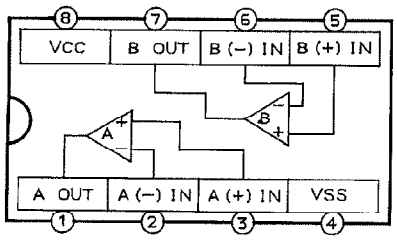
IC201 : YEAMEA6320TT



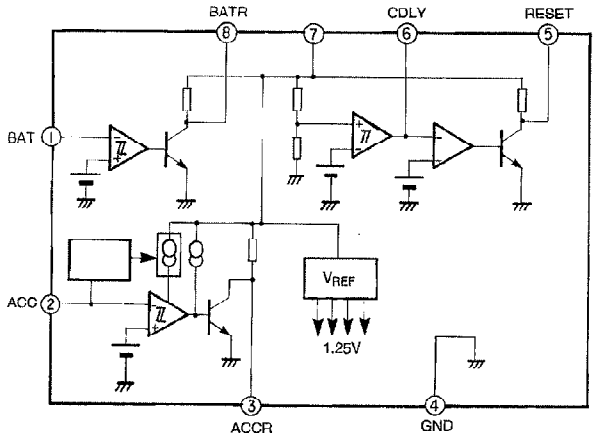
IC241 : YEAMTDA7384



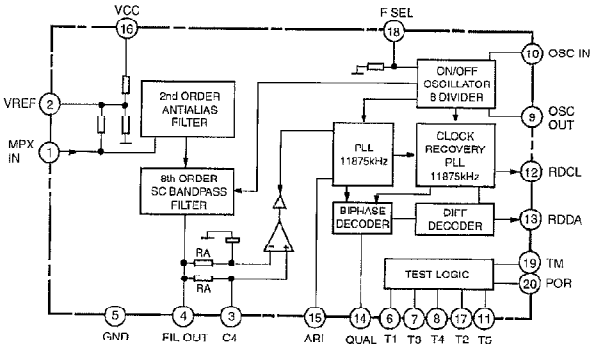
IC650 : YEAMC1458BE



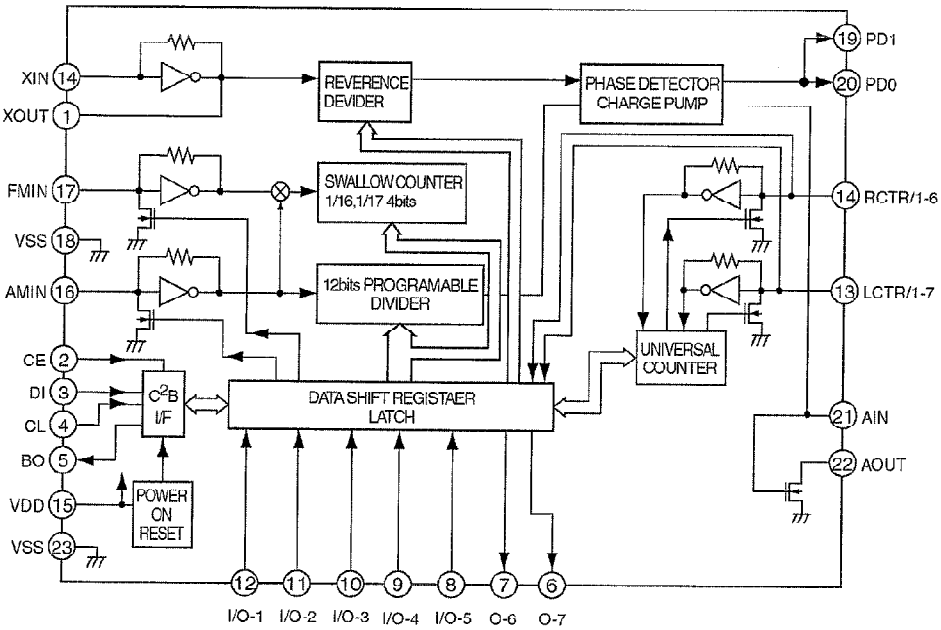
IC802 : YEAMM5218AFE



IC601 : AN8065SE1

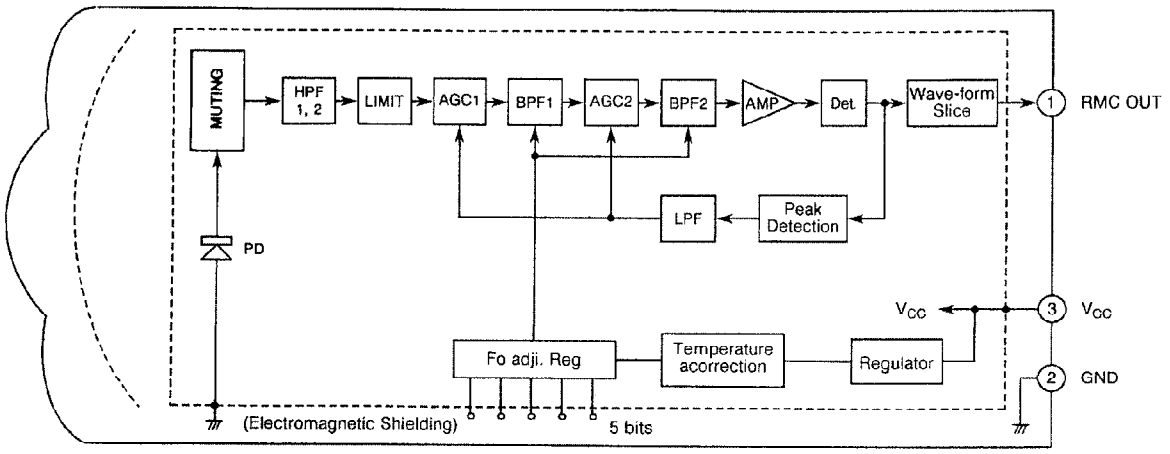


IC900 : YEAMDA7331D



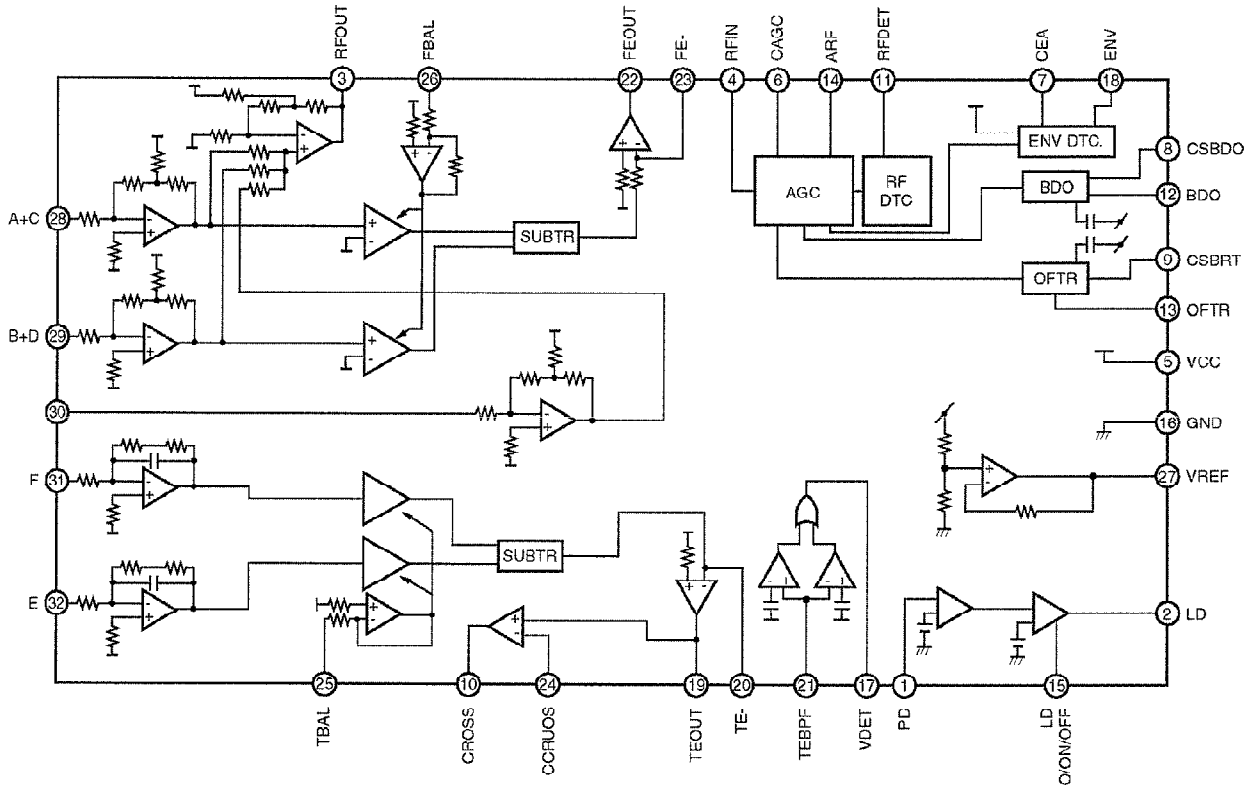
IC400 : YEAMLC72146

11.2. Display Block

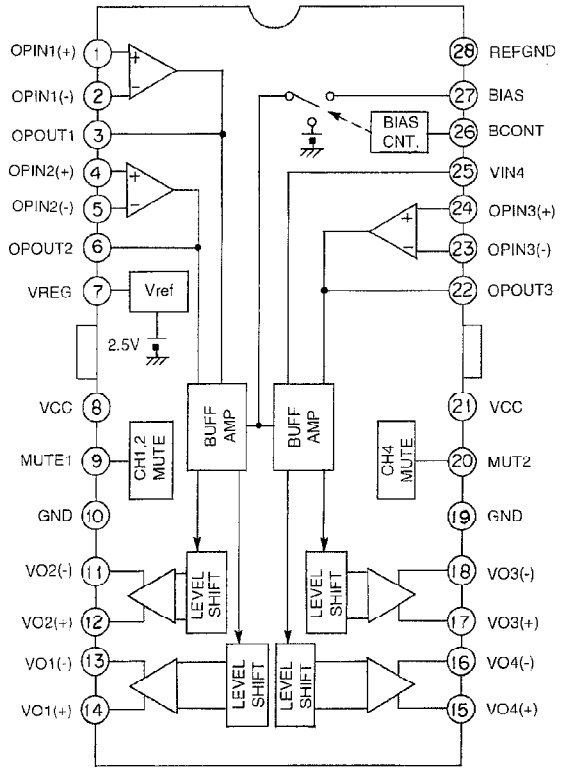


IC905 : YEAMSBX8035F

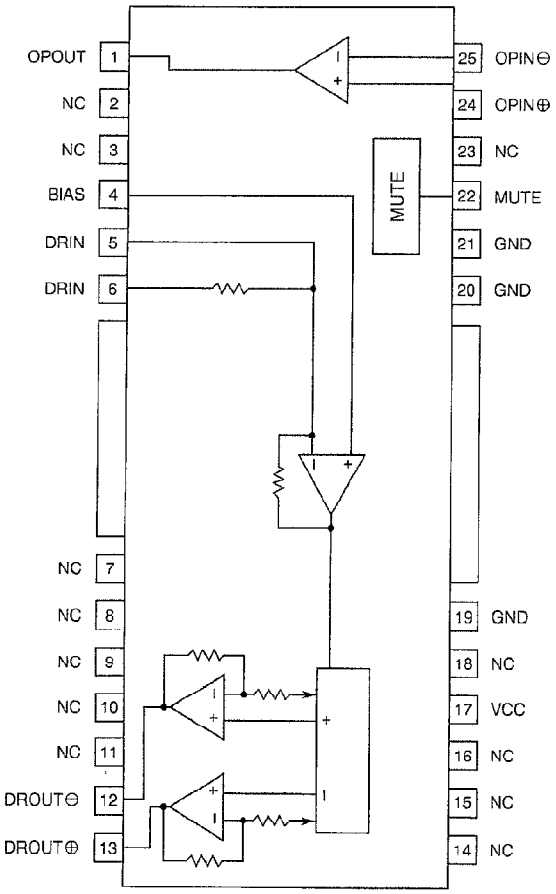
11.3. CD Servo Block



IC101 : C1BB00000173



IC601 : C0GBY0000004



IC901 : C0GBY0000003

12 REPLACEMENT PARTS LIST

Notes :

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

12.1. IC's and Transistors

MAIN BLOCK [E6807]

Ref. No.	Part No.	Part Name & Description	Remarks
IC201	YEAMEA6320TT	IC	
IC241	YEAMTDA7384	IC	
IC400	YEAMLC72146	IC	
IC600	C2BBGF000108	IC	
IC601	AN8065SE1	IC	
IC650	YEAMC14584BE	IC	
IC702	YEAMPC2910HF	IC	
IC703	AN7805F	IC	
IC704	AN7805F	IC	
IC705	AN8009M-E1	IC	
IC802	YEAMM5218AFE	IC	
IC900	YEAMDA7331D	IC	
PA51	YEAU03E052C	Electronic Tuner	
Q51	YEANA114EKTX	Transistor	
Q230	YEANC323TUTX	Transistor	
Q231	YEANC323TUTX	Transistor	
Q330	YEANC323TUTX	Transistor	
Q331	YEANC323TUTX	Transistor	
Q400	YEANFP1F3PT1	Transistor	
Q401	YEAN25K536TB	Transistor	
Q403	B1GBCFNN0005	Transistor	
Q660	YEANA114EKTX	Transistor	
Q661	YEANA114EKTX	Transistor	
Q663	YEANA114EKTX	Transistor	
Q664	B1GBCFNN0005	Transistor	
Q701	YEAND1859T	Transistor	
Q702	YEANB1243QRT	Transistor	
Q703	YEANB1243QRT	Transistor	
Q704	B1GBCFJN0005	Transistor	
Q705	2SD2139TA	Transistor	
Q706	YEANA114EKTX	Transistor	
Q707	YEANA114EKTX	Transistor	
Q708	B1GBCFJN0005	Transistor	
Q709	2SD1994ATA	Transistor	
Q901	B1ABCF000044	Transistor	

DISPLAY BLOCK [E8793]

Ref. No.	Part No.	Part Name & Description	Remarks
IC901	YEAMLC75854T	IC	
IC905	YEAMSBX8035F	IC	
Q905	B1GBCFNN0005	Transistor	
Q906	B1GBCFNN0005	Transistor	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC101	C1BB00000173	IC	
IC201	MN662748RPMF	IC	
IC401	MN101C117AF	IC	
IC601	C0GBY0000004	IC	
IC901	C0GBY0000003	IC	
Q1	YEADPS1101W	Transistor	
Q3	YEADPS1101W	Transistor	
Q6	YEADPS1101W	Transistor	
Q101	2SB766ATX	Transistor	
Q451	YEANC113ZKTX	Transistor	

12.2. Diodes

MAIN BLOCK [E6807]

Ref. No.	Part No.	Part Name & Description	Remarks
D601	MA723TA	Diode	
D602	LN25RP	LED	
D702	MA165TA	Diode	
D703	B0BA5R700006	Diode	
D704	MA723TA	Diode	
D707	YEADRB100AT	Diode	
D708	YEADRD91M1T2	Diode	
D711	MA4051LMTA	Diode	
D715	YEADDAM3MA47	Diode	
D803	MA151ATX	Diode	
D804	YEADRD51MBT1	Diode	
D901	YEADRD51MBT1	Diode	

DISPLAY BLOCK [E8793]

Ref. No.	Part No.	Part Name & Description	Remarks
D900	LN1271RAL	LED	
D901	LNJ306G5TUWQ	LED	
D902	LNJ306G5TUWQ	LED	
D904	LNJ306G5TUWQ	LED	
D905	LNJ306G5TUWQ	LED	
D906	LNJ306G5TUWQ	LED	
D907	LNJ306G5TUWQ	LED	
D908	LNJ306G5TUWQ	LED	
D909	LNJ306G5TUWQ	LED	
D910	LN1361CTR	LED	
D911	LN1361CTR	LED	
D912	LN1361CTR	LED	
D913	LNJ306G5TUWQ	LED	
D914	LNJ306G5TUWQ	LED	
D926	MA8056LMHTX	Diode	
D927	MA8056LMHTX	Diode	
D928	MA8056LMHTX	Diode	
D929	MA8056LMHTX	Diode	
D930	MA8047MTX	Diode	
D940	B3AFA0000015	LED	
D941	MA8047MTX	Diode	
D943	LNJ306G5TUWQ	LED	

SUB BLOCK [E8497B]

Ref. No.	Part No.	Part Name & Description	Remarks
D642	LNJ306G5TUWQ	LED	
D643	LNJ306G5TUWQ	LED	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
D1	YEADAN1102W	Diode	
D3	YEADAN1102W	Diode	
D6	YEADAN1102W	Diode	
D201	YEAD1SS355T1	Diode	
D401	MA151WKTX	Diode	
D601	YEAD1SS355T1	Diode	

12.3. Capacitors

MAIN BLOCK [E6807]

Ref. No.	Part No.	Part Name & Description	Remarks
C51	ECA1CSA470I	Electrolytic, 47µF 16WV	
C52	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C53	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C56	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C57	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C59	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C201	YECUS1H560JM	Ceramic, 56PF 50WV	
C203	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C204	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C205	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C208	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C209	YECUS1H562KX	Ceramic, 0.0056µF 50WV	
C210	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C211	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C212	YECUS1H560JM	Ceramic, 56PF 50WV	
C230	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C231	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C241	ECEA1HKAR47I	Electrolytic, 0.47µF 50WV	
C242	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C244	ECEA1HKAR47I	Electrolytic, 0.47µF 50WV	
C245	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C246	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C248	ECA1CDT472Y	Electrolytic, 4700µF 16WV	
C249	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C250	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C251	ECEA1HKA2R2I	Electrolytic, 2.2µF 50WV	
C252	ECEA1AKA101I	Electrolytic, 100µF 10WV	
C301	YECUS1H560JM	Ceramic, 56PF 50WV	
C303	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C304	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C305	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C308	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C309	YECUV2A562KX	Ceramic, 0.0056µF 100WV	
C310	ECEA0JKA331I	Electrolytic, 330µF 6.3WV	
C311	ECEA1AKA221I	Electrolytic, 220µF 10WV	
C312	YECUS1H560JM	Ceramic, 56PF 50WV	
C330	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C331	ECEA1HKA3R3I	Electrolytic, 3.3µF 50WV	
C341	ECEA1HKAR47I	Electrolytic, 0.47µF 50WV	
C342	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C344	ECEA1HKAR47I	Electrolytic, 0.47µF 50WV	
C345	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C348	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C401	YECUS1H150JM	Ceramic, 15PF 50WV	
C402	YECUS1H150JM	Ceramic, 15PF 50WV	
C403	ECA0JSA101I	Electrolytic, 100µF 6.3WV	
C404	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C408	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C409	ECQV1H224JL2	Plastic Film, 0.22µF 50WV	
C410	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C411	ECEA1AKG221I	Electrolytic, 220µF 10WV	
C412	ECEA1AKA221I	Electrolytic, 220µF 10WV	
C413	YECUS1H101JM	Ceramic, 100PF 50WV	
C414	ECEA1AKA101I	Electrolytic, 100µF 10WV	
C601	YECUS1H220JM	Ceramic, 22PF 50WV	
C602	YECUS1H220JM	Ceramic, 22PF 50WV	
C603	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C604	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C605	ECEA0JKA331I	Electrolytic, 330µF 6.3WV	
C606	ECEA0JKA221I	Electrolytic, 220µF 6.3WV	
C607	EECS5R5H473	Electrolytic, 0.047F 5.5WV	
C608	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C610	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C611	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C612	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C613	YECUS1H221JM	Ceramic, 220PF 50WV	
C617	YECUS1H221JM	Ceramic, 220PF 50WV	
C635	YECUS1H221JM	Ceramic, 220PF 50WV	
C636	YECUS1H221JM	Ceramic, 220PF 50WV	
C637	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C650	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C660	ECEA1HKA010I	Electrolytic, 1µF 50WV	
C661	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C662	ECEA1HKA010I	Electrolytic, 1µF 50WV	
C690	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C701	ECEA1CKA101	Electrolytic, 100µF 16WV	
C702	ECEA1HKA4R7I	Electrolytic, 4.7µF 50WV	
C703	ECEA0JKA470I	Electrolytic, 47µF 6.3WV	
C704	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C705	ECEA1HKAR47I	Electrolytic, 0.47µF 50WV	
C706	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C707	ECA1AM471B	Electrolytic, 470µF 10WV	
C709	ECEA1AKS101	Electrolytic, 100µF 10WV	
C710	ECA1CM102B	Electrolytic, 1000µF 16WV	
C711	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C712	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C713	ECSF1VE475	Tantalum, 4.7µF 35WV	
C714	ECEA0JKA101I	Electrolytic, 100µF 6.3WV	
C716	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C718	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C719	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C720	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C721	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C722	ECEA1AKA221I	Electrolytic, 220µF 10WV	
C725	ECEA0JKA470I	Electrolytic, 47µF 6.3WV	
C728	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C729	ECEA1AKA221I	Electrolytic, 220µF 10WV	
C810	ECEA0JKA220I	Electrolytic, 22µF 6.3WV	
C811	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C812	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C813	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C814	ECEA1HKA2R2I	Electrolytic, 2.2µF 50WV	
C901	YECUS1H270JM	Ceramic, 27PF 50WV	
C902	YECUS1H470JM	Ceramic, 47PF 50WV	
C903	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C904	ECEA1CKA100I	Electrolytic, 10µF 16WV	
C905	YECUS1H271JM	Ceramic, 270PF 50WV	
C906	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C907	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C909	YECUS1H471JM	Ceramic, 470PF 50WV	
J530	YECUV2A103KX	Ceramic, 0.01µF 100WV	
J607	YECUS1H221JM	Ceramic, 220PF 50WV	
J608	YECUS1H103KX	Ceramic, 0.01µF 50WV	

DISPLAY BLOCK [E8793]

Ref. No.	Part No.	Part Name & Description	Remarks
C910	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C911	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C914	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C915	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C916	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C923	YECUS1H681JM	Ceramic, 680PF 50WV	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
C101	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C102	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C103	F3H0J1070005	Tantalum, 100µF 6.3WV	
C104	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C105	ECSH0JY475CR	Tantalum, 4.7µF 6.3WV	
C106	F1H1E273A011	Ceramic, 0.027µF 25WV	
C107	F1H1H152A201	Ceramic, 0.0015µF 50WV	
C108	YECUZ1H472KX	Ceramic, 0.0047µF 50WV	
C109	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C110	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C111	YECSW1A106MA	Tantalum, 10µF 10WV	
C112	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C113	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C115	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C116	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C117	YECUS1A105KX	Ceramic, 1µF 10WV	
C118	YECUZ1H471KX	Ceramic, 470PF 50WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C119	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C120	YECUZ1H561KX	Ceramic, 560PF 50WV	
C121	YECUZ1E123KX	Ceramic, 0.012µF 25WV	
C122	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C133	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C145	YECUZ1A124KX	Ceramic, 0.12µF 10WV	
C201	YECUZ1E123KX	Ceramic, 0.012µF 25WV	
C203	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C204	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C205	YECSW1A106MA	Tantalum, 10µF 10WV	
C206	F1H1A4740004	Ceramic, 0.47µF 10WV	
C208	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C209	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C210	YECSW1A106MA	Tantalum, 10µF 10WV	
C214	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C451	F1H1A4740004	Ceramic, 0.47µF 10WV	
C453	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C601	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C602	ECEV1CA470SP	Electrolytic, 47µF 16WV	
C603	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C605	YECUS1A105KX	Ceramic, 1µF 10WV	
C901	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C903	YECUZ1C333KX	Ceramic, 0.033µF 16WV	

12.4. Resistors

MAIN BLOCK [E6807]

Ref. No.	Part No.	Part Name & Description	Remarks
C615	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J501	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J502	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J503	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J504	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J506	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J507	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J508	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J509	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J511	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J512	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J513	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J516	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J518	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J522	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J523	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J525	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J526	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J528	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J529	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J531	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J532	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J533	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J534	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J535	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J536	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J537	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J538	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J541	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J605	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J609	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J610	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J611	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J612	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J616	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R50	ERJ6GEYJ5R6	Chip, 5.6Ω 1/10W	
R52	ERJ8GEYJ101V	Chip, 100Ω 1/8W	
R53	ERJ6GEYJ331	Chip, 330Ω 1/10W	
R54	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R55	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R58	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R201	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R202	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R204	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R205	ERJ6GEYJ332	Chip, 3.3kΩ 1/10W	
R225	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R226	ERJ8GEYJ333V	Chip, 33kΩ 1/8W	
R230	ERD25TJ101	Carbon, 100Ω 1/4W	
R235	ERD25TJ101	Carbon, 100Ω 1/4W	
R236	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R240	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R241	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R242	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R243	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R250	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R251	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R301	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R302	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R304	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R305	ERJ6GEYJ332	Chip, 3.3kΩ 1/10W	
R330	ERD25TJ101	Carbon, 100Ω 1/4W	
R335	ERD25TJ101	Carbon, 100Ω 1/4W	
R336	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R340	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R341	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R342	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R343	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R350	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R351	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R401	ERJ6GEYJ152	Chip, 1.5kΩ 1/10W	
R402	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R403	ERJ6GEYJ100	Chip, 10Ω 1/10W	
R406	ERJ6GEYJ182	Chip, 1.8kΩ 1/10W	
R407	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R408	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R409	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R600	ERJ6GEYJ330	Chip, 33Ω 1/10W	
R603	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R604	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R607	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R608	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R609	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R610	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R611	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R614	ERJ8GEYJ681V	Chip, 680Ω 1/8W	
R615	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R617	ERD25TJ102	Carbon, 1kΩ 1/4W	
R618	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R619	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R620	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R621	ERJ8GEYJ102V	Chip, 1kΩ 1/8W	
R622	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R623	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R628	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R629	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R630	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R631	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R632	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R633	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R639	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R642	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R643	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R645	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R650	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R651	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R652	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R658	ERJ6GEYJ562	Chip, 5.6kΩ 1/10W	
R659	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R660	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R661	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R673	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R676	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R677	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R680	ERJ8GEYJ331V	Chip, 330Ω 1/8W	
R681	ERJ8GEYJ331V	Chip, 330Ω 1/8W	
R682	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R686	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	

CQ-DFX100N

Ref. No.	Part No.	Part Name & Description	Remarks
R690	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R691	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R692	ERJ8GEYJ104V	Chip, 100kΩ 1/8W	
R693	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R694	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R695	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R701	ERDS2FJ470	Carbon, 47Ω 1/4W	
R703	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R704	ERJ6GEYJ274	Chip, 270kΩ 1/10W	
R705	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R706	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R707	ERD25TJ224T	Carbon, 220kΩ 1/4W	
R708	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R709	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R710	ERDS1FJ681	Carbon, 680Ω 1/2W	
R711	ERDS1FJ681	Carbon, 680Ω 1/2W	
R712	ERJ8GEYJ1R0V	Chip, 1.0Ω 1/8W	
R713	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
R714	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R715	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R716	ERDS1FJ681	Carbon, 680Ω 1/2W	
R718	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R719	ERJ8GEYJ1R0V	Chip, 1.0Ω 1/8W	
R720	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R721	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R722	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R723	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R724	ERJ8GEYJ222V	Chip, 2.2kΩ 1/8W	
R725	ERJ6GEYJ154	Chip, 150kΩ 1/10W	
R726	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R727	ERJ6GEYJ151	Chip, 150Ω 1/10W	
R728	ERJ6GEYJ151	Chip, 150Ω 1/10W	
R801	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R804	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R805	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R806	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R807	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R808	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R809	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R900	ERJ6GEYJ225V	Chip, 2.2MΩ 1/10W	
R902	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R903	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R904	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R905	ERJ6GEYJ334	Chip, 330kΩ 1/10W	
R906	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R908	ERJ8GEYJ331V	Chip, 330Ω 1/8W	

DISPLAY BLOCK [E8793]

Ref. No.	Part No.	Part Name & Description	Remarks
R906	ERJ6GEYJ152	Chip, 1.5kΩ 1/10W	
R907	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R908	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R909	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R910	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R911	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R938	ERJ6GEYJ4R7	Chip, 4.7Ω 1/10W	
R939	ERJ6GEYJ4R7	Chip, 4.7Ω 1/10W	
R940	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R941	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R942	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R943	ERJ6GEYJ221	Chip, 220Ω 1/10W	
R951	ERJ6GEYJ391	Chip, 390Ω 1/10W	
R952	ERJ6GEYJ121	Chip, 120Ω 1/10W	
R953	ERJ6GEYJ121	Chip, 120Ω 1/10W	
R954	ERJ6GEYJ121	Chip, 120Ω 1/10W	
R955	ERJ8GEYJ271V	Chip, 270Ω 1/8W	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
J401	ERJ3GEY0R00V	Chip, 0Ω 1/16W	
J429	ERJ3GEY0R00V	Chip, 0Ω 1/16W	
L451	ERJ6GEY0R00V	Chip, 0Ω 1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R101	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R102	ERJ14YJ330H	Chip, 33Ω 1/4W	
R103	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R104	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R105	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R106	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R107	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R108	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R109	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R110	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R111	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R112	ERJ3GEYJ393V	Chip, 39kΩ 1/16W	
R113	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R114	ERJ3GEYJ153V	Chip, 15kΩ 1/16W	
R119	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R120	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R147	ERJ3GEYJ153V	Chip, 15kΩ 1/16W	
R207	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R208	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R209	ERJ3GEYJ391V	Chip, 390Ω 1/16W	
R210	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R211	ERJ3GEYJ124V	Chip, 120kΩ 1/16W	
R213	ERJ3GEYJ470V	Chip, 47Ω 1/16W	
R214	ERJ3GEYJ272V	Chip, 2.7kΩ 1/16W	
R215	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R401	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R402	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R404	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R411	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R454	ERJ6GEYJ271	Chip, 270Ω 1/10W	
R456	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R461	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R463	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R466	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R471	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R473	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R476	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R481	ERJ3GEYJ104V	Chip, 100kΩ 1/16W	
R601	ERJ3GEYJ123V	Chip, 12kΩ 1/16W	
R602	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R603	ERJ3GEYJ273V	Chip, 27kΩ 1/16W	
R604	ERJ3GEYJ124V	Chip, 120kΩ 1/16W	
R605	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R606	ERJ3GEYJ822V	Chip, 8.2kΩ 1/16W	
R607	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R608	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R609	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R610	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R613	ERJ3GEYJ122V	Chip, 1.2kΩ 1/16W	
R901	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R902	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R903	ERJ3GEYJ122V	Chip, 1.2kΩ 1/16W	

12.5. Connectors

MAIN BLOCK [E6807]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ620	K9ZZ00000176	Connector, 14P FFC	
CN300	YEAE02166	Connector, 4P RCA	
CN601	YEAE0115MX	Connector, 15P	
CN602	YEAETSBP0607	Connector, 6P	
CN603	YEAE0104MX	Connector, 4P	
CN620	YEAE012763	Connector, 14P	
CN680	YEAE012307	Connector, 8P DIN	
CN701	YEAE012748	Connector, 16P	

DISPLAY BLOCK [E8793]

Ref. No.	Part No.	Part Name & Description	Remarks
CN901	YEAE012760	Connector, 14P	

SUB BLOCK [E8497B]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ640	YEAE0115MPA	Connector, 15P	
CJ642	YEAE0104MPA	Connector, 4P	
CP641	YEAE012761	Connector, 14P	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
CN101	YEAESFW15R2E	Connector, 15P	
CN402	K1MN14B00028	Connector, 14P	
CN901	K1MN05B00010	Connector, 5P	
CN902	K1MN05B00009	Connector, 5P	

12.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW2	ESE102MH2	Switch	
SW4	YEAS09275	Switch	
SW602	YEAS08042	Switch	
SW610	YEAS09267	Switch	
SW901-918	YEAS09312	Switch	

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Remarks
XL400	YEXL49U072TA	Crystal OSC	
XL451	YEXLSTCC419T	Crystal OSC	
XL600	YEXL49U0419T	Crystal OSC	
XL900	YEXL49U0433T	Crystal OSC	

CERAMIC FILTERS

Ref. No.	Part No.	Part Name & Description	Remarks
XL201	H2D169500005	Ceramic Filter	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L50	YELT03N330JT	Coil	
L400	YELT02C101KT	Coil	
L600	YELT02C470KT	Coil	
L601	YELT02C101KT	Coil	
L630	YELT02C8R2KT	Coil	
L702	YETQ026F143	Coil	
L800	YELT02C101KT	Coil	
L900	YELT02C330KT	Coil	
L903	YELT02C330KT	Coil	

LCD

Ref. No.	Part No.	Part Name & Description	Remarks
LCD901	L5ACBKC00004	LCD Display	

LAMPS

Ref. No.	Part No.	Part Name & Description	Remarks
Z50	J0LE00000002	Neon Tube	

THERMISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
PT701	YERT7AR4R7MT	Thermistor	

12.7. Accessories

PRINTINGS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEFM283500	Operating Instructions	

INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEAJ02793	Power Cord	
	YEAA33144	Antenna Accessory	
	YEP9BS1111	Screws	
	YEFA131302	Detachable Unit Cover	
	YEFX0214198	Mounting Collar	

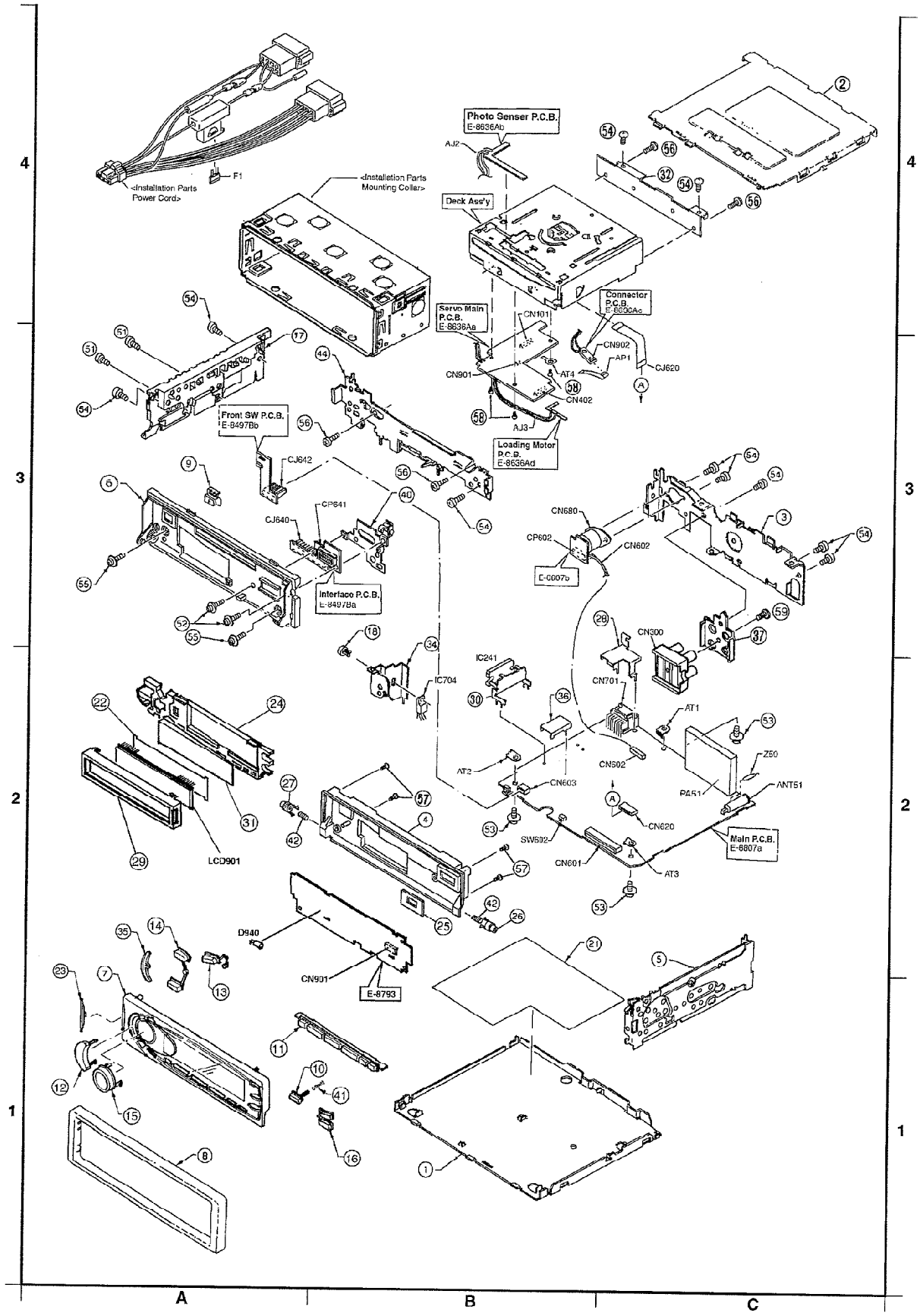
12.8. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
F1	YEAF02015	Fuse, 15A	⚠
ANT51	YEAA10090	Antenna Receptacle	
AJ2	YEAJ071287	Cord w/Plug	
AJ3	YEAJ071285	Cord w/Plug	
AP1	YEAP2711	Flexible P.C.B.	
AT1-3	K4ZZ01000048	Terminal	
AT4	YEATSD00405	Terminal	
1	YEFA05594B	Bottom Cover	(1-B)
2	YEFA031359E	Upper Cover	(4-C)
3	YEFA08518AK	Rear Plate	(3-C)
4	YEFA131413	Cover, Detachable	(2-B)
5	YEFA09505	Side Plate	(1 C)
6	YEFC026243	Escutcheon Ass'y, Unit	(3-A)
7	YEFC026677	Escutcheon Ass'y, Detachable	(1-A)
8	YEFC05570	Trim Plate	(1-A)
9	YEFE135147	Button, EJECT	(3-A)
10	YEFE135442	Button, OPEN	(1-A)
11	YEFE135932	Button, PRESET	(1-A)
12	YEFE135435	Button, VOL	(1-A)
13	YEFE135436	Button, SEL	(2-A)
14	YEFE136069	Button, BAND/SOURCE	(2-A)
15	YEFE135439	Button, TUNE/TRACK	(1-A)
16	YEFE136071	Button, TA/AF	(1-A)
17	YEFF01922	Heat Sink	(3-A)
18	YEFJ05046	Color Rivet	(2-B)
21	YEFV011813	Insulator	(1-B)
22	YEFV021562A	Optical Shade	(2-A)
23	YEFX0011904	Transparent Plate	(1-A)
24	YEFK06897A	Holder, LCD	(2-A)
25	YEFV011928	Insulator	(2-B)
26	YEFW04156	Shaft Collar	(2-B)
27	YEFW04157	Shaft Collar	(2-A)
28	YEFX0214422	Bracket, CN701	(2-C)
29	YEFX0214906	Bracket, LCD	(2-A)
30	YEFX0213945B	Bracket, IC241	(2-B)
31	YEFX0011960	Transparent Plate	(2-A)
32	YEFX0214700	Bracket, Deck	(4-C)
34	YEFX0214423	Bracket, IC704	(2-B)
35	YEFX0011905	Transparent Plate	(1-A)
36	YEFX0214168	Bracket, IC702	(2-B)
37	YEFX0213650	Bracket, RCA	(3-C)
40	YEP9FX069	Hook Bracket Ass'y	(3-B)
41	YEFX0052396	Spring, OPEN	(1-A)
42	YEFX0052253	Spring	(2-A) (2-B)
44	YEP9FX088	Front Chassis Ass'y	(3-B)
51	YEJS06092	Screw, 3mm * 10mm	
52	YEJS03020	Screw, 2mm * 4mm	
53	YEJT03009	Tapping Screw, 3mm * 8mm	
54	XTB3+6FFX	Tapping Screw, 3mm * 6mm	
55	YEJT03156	Tapping Screw, 2.6mm * 4mm	
56	YEJT03267	Tapping Screw,	
57	XTN2+8GFZ	Tapping Screw, 2mm * 8mm	
58	XYN2+J4FX	Screw, 2mm * 4mm	
59	XTB3+8GFX	Tapping Screw, 3mm * 8mm	

CQ-DFX100N

13 EXPLODED VIEW (Unit)

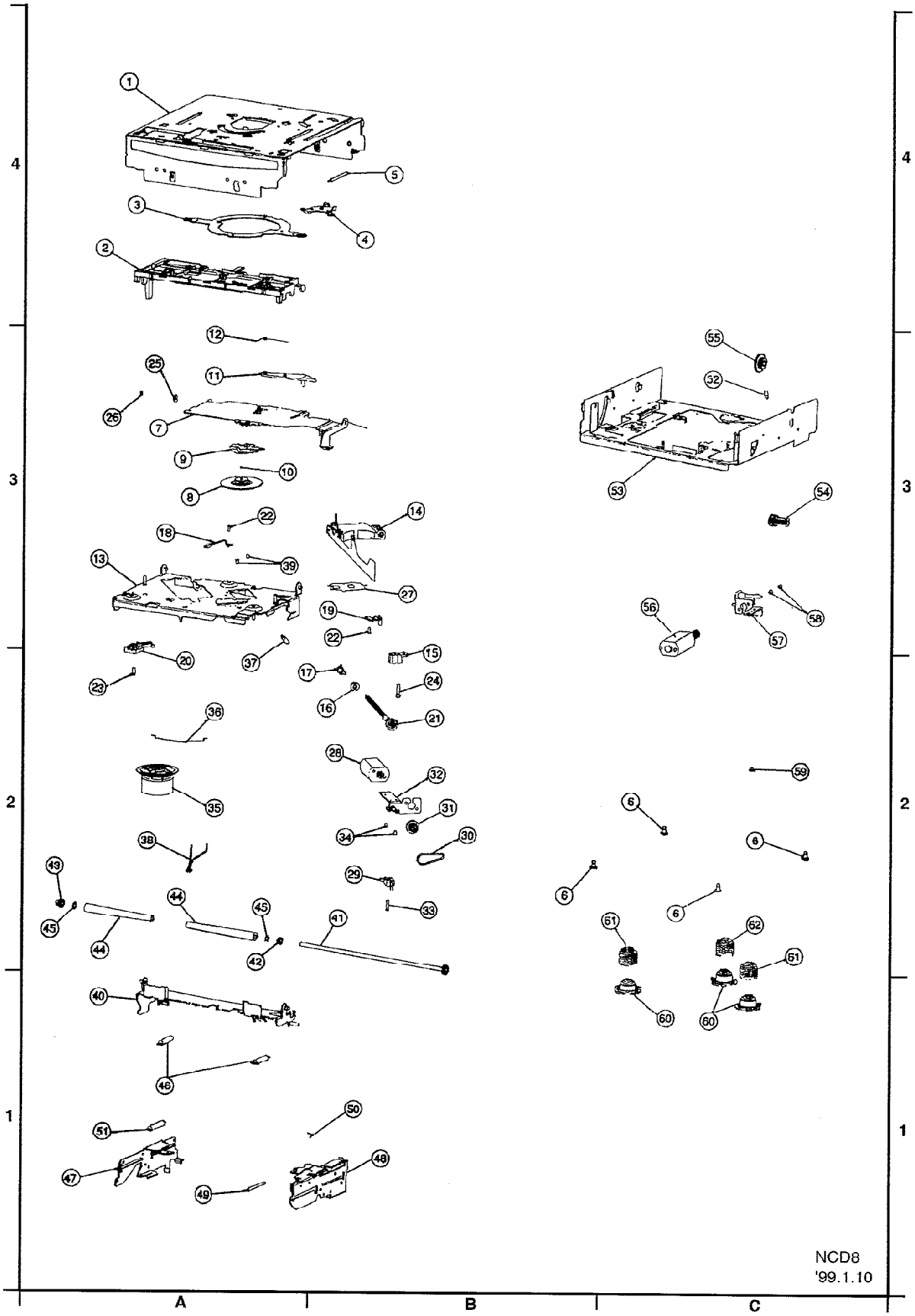


14 CD PLAYER PARTS

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
1	YGFA011781	Upper Chassis	(4-A)
2	YGFX236153	Disk Guide	(4-A)
3	YGFX0462017	Link Lever	(4-A)
4	YGFX0462018	Detection Lever (2)	(4-B)
5	YGFX0052357	Detection Lever (2) Spring	(4-B)
6	YEJT03131	Tapping Screw, 2.6 mm* 5mm	(2-C) (2-B)
7	YGFX249461	Clamp Arm	(3-A)
8	YGFX007640	Clamper	(3-A)
9	YGFX0052363	Clamper Spring Plate	(3-A)
10	YEFX999957	Ball Bearing	(3-A)
11	YGFX0462013	Detection Lever (1)	(3-A)
12	YGFX0052352	Detection Lever (1) Spring	(3-A)
13	YGFA011795	Suspension Chassis Ass´y	(3-A)
14	YEP0FX3100	Optical Pick-up Ass´y	(3-B)
15	YEFW04150	Feed Screw Housing A	(2-B)
16	YEFW04137A	Feed Screw Housing B	(2-B)
17	YGFX0052386	Thrust Adjusting Spring	(2-B)
18	YEFX236144B	Traverse Guide	(3-A)
19	YGFX9992027	Feed Screw Carrier	(3-B)
20	YEFX9991458A	FPC Holder	(2-A)
21	YGJT03240	Traverse Gear Ass´y	(2-B)
22	YEJS02037	Screw, (Pick-up)	(3-A) (3-B)
23	XYN2+C5FX	Screw, (FPC) 2mm * 5mm	(2-A)
24	XYN2+J10FX	Screw, (Housing) 2mm * 10m	(2-B)
25	YEFX0051590	Spring Washer	(3-A)
26	XUC15V	Retaining Ring, 1.5mm	(3-A)
27	YEFX9991806A	Sealed Plate	(3-B)
28	YGP0FX3503	Traverse Motor Ass´y	(2-B)
29	YEAS23151A	Inner Switch	(2-B)
30	YEFR03080	Rubber Belt	(2-B)
31	YEFX026124A	Idler Pulley	(2-B)
32	YGFX018611	Motor Bracket Ass´y	(2-B)
33	YEJS02018FZ	Screw, (SW)	(2-B)
34	XQN2+A25FX	Screw, 2mm * 25mm	(2-B)
35	YGP0FX3529	Spindle Motor Ass´y	(2-A)
36	YEFX0051991C	Spring (Motor)	(2-A)
37	YGFX0052353	Clamper Spring	(2-A)
38	YGAJ071286	Motor Cable	(2-A)
39	XQN17+A25FX	Screw, 1.7mm * 25mm	(3-A)
40	YGFX0462019	Feeder Arm Ass´y	(1-A)
41	YGP0FX3507	Roller Gear Ass´y	(2-B)
42	YEFW04144	Roller Shaft Collar (1)	(2-A)
43	YEFW04138	Roller Shaft Collar (2)	(2-A)
44	YEFX218282	Rubber Roller	(2-A)
45	YEJW04128	Washer	(2-A)
46	YGFX0052362	Spring (Feeder Arm)	(1-A)
47	YGFX0462015	Suspension Lock Plate (L)	(1-A)
48	YGP0FX3504	Suspension Lock Plate (R) Ass´y	(1-B)
49	YGFX0052355	Spring (Rack Gear)	(1-A)
50	YGFX0052356	Spring (Rack Lock Lever)	(1-B)
51	YGFX0052360	Spring (Suspension Lock Plate L)	(1-A)
52	YGFX0052361	Spring (Lock Plate)	(3-C)
53	YGFA011779	Bottom Chassis Ass´y	(3-C)
54	YGFX003940	Driving Gear (1)	(3-C)
55	YGFX003941	Driving Gear (2)	(3-C)
56	YGP0FX3506	Loding Motor Ass´y	(3-C)
57	YGFX018605	Loding Motor Bracket Ass´y	(3-C)
58	XQN2+A25FX	Screw, (Motor) 2mm * 25mm	(3-C)
59	YEJS06188	Screw	(2-C)
60	YEFS04693	Oil Dumper	(1-C)
61	YGFX0052358	Suspension Spring (A)	(2-C)
62	YGFX0052359	Suspension Spring (B)	(2-C)

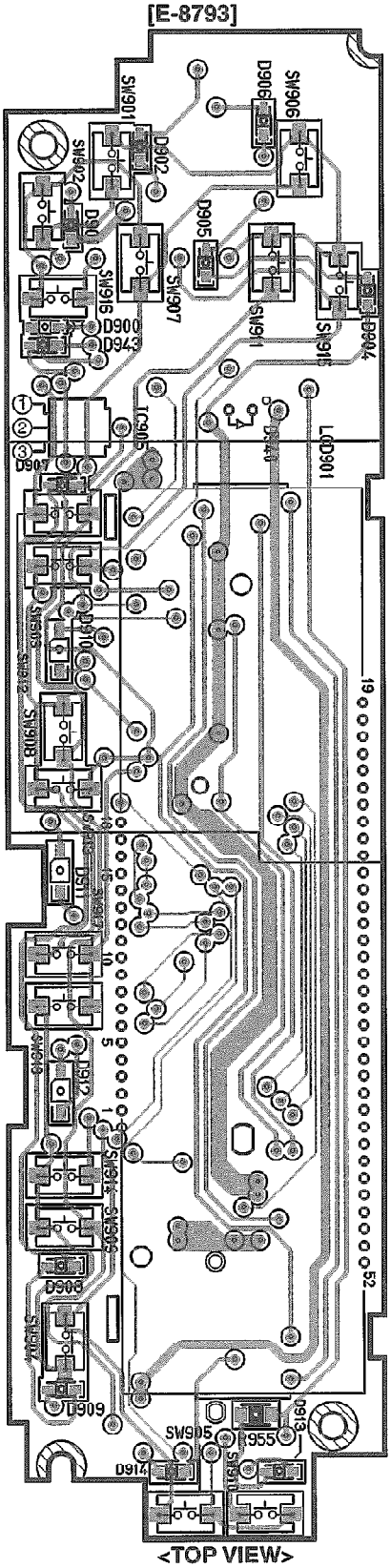
15 EXPLODED VIEW (CD Deck)



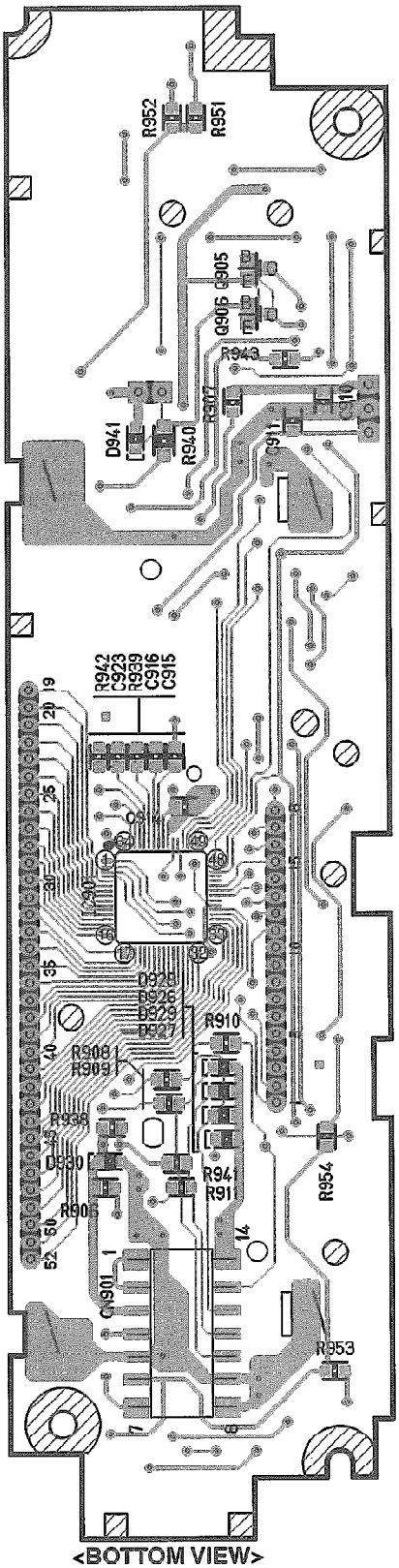
16 WIRING DIAGRAM

16.1. Display Block

[E-8793]

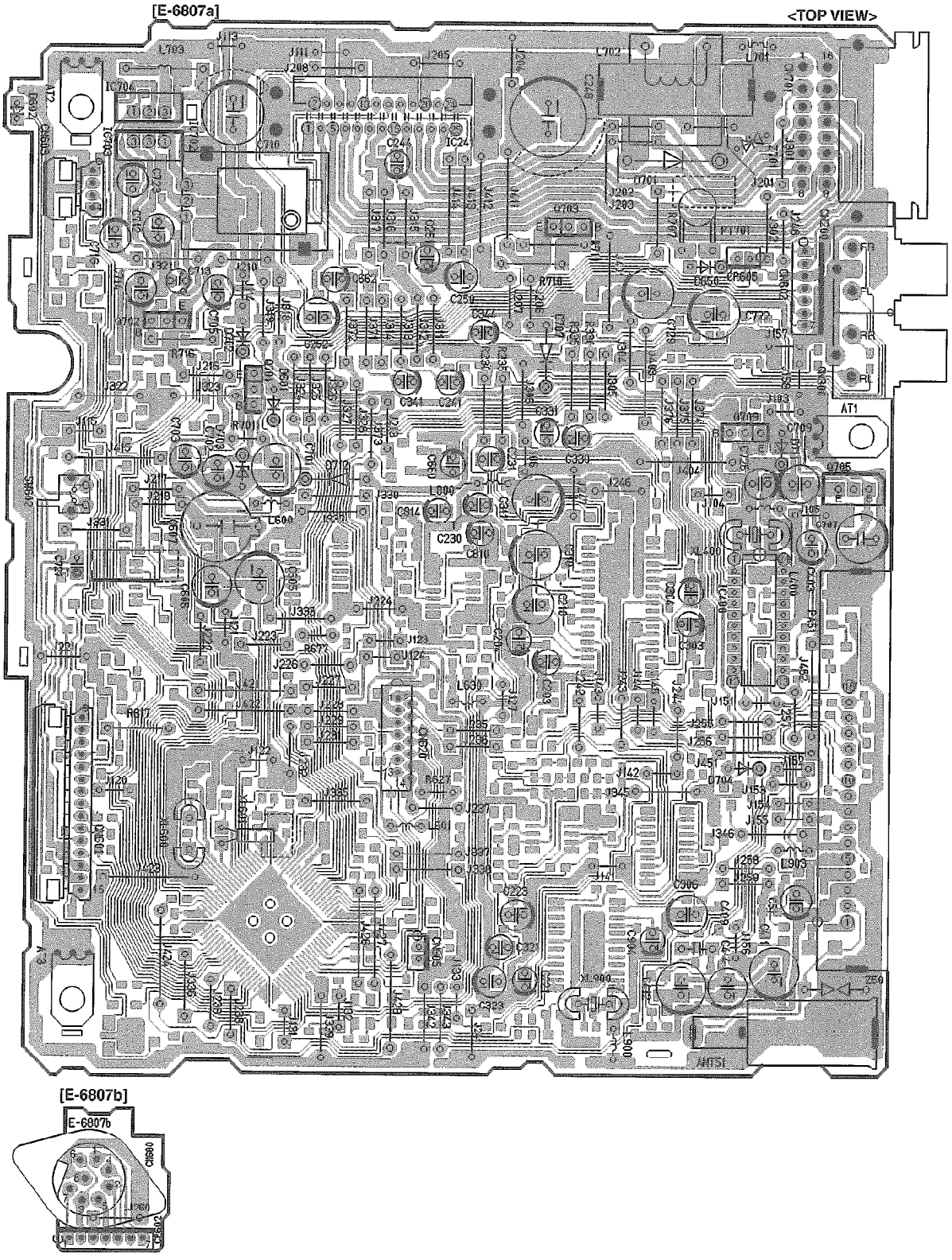


<TOP VIEW>



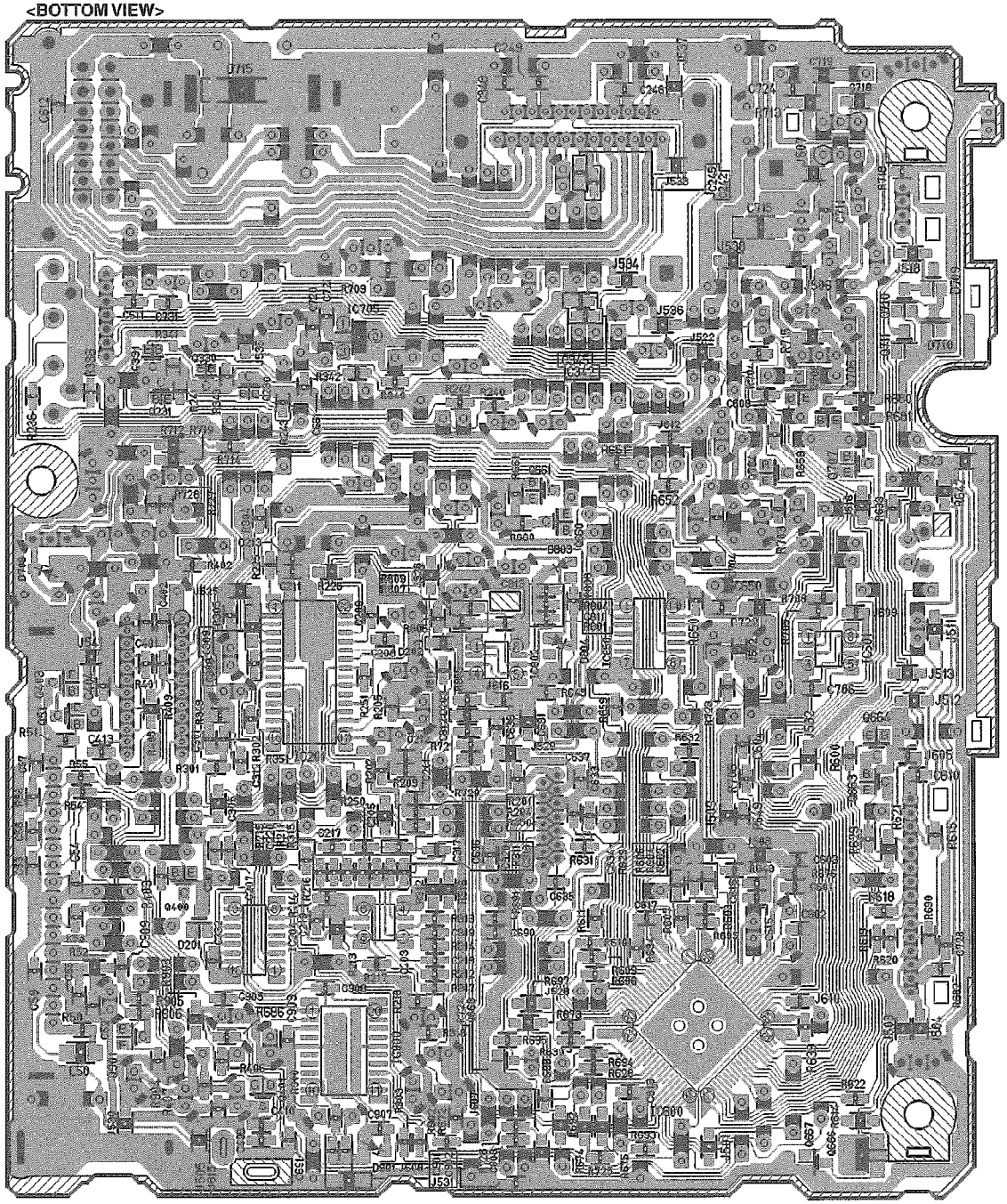
<BOTTOM VIEW>

16.2. Main Block (Top View)

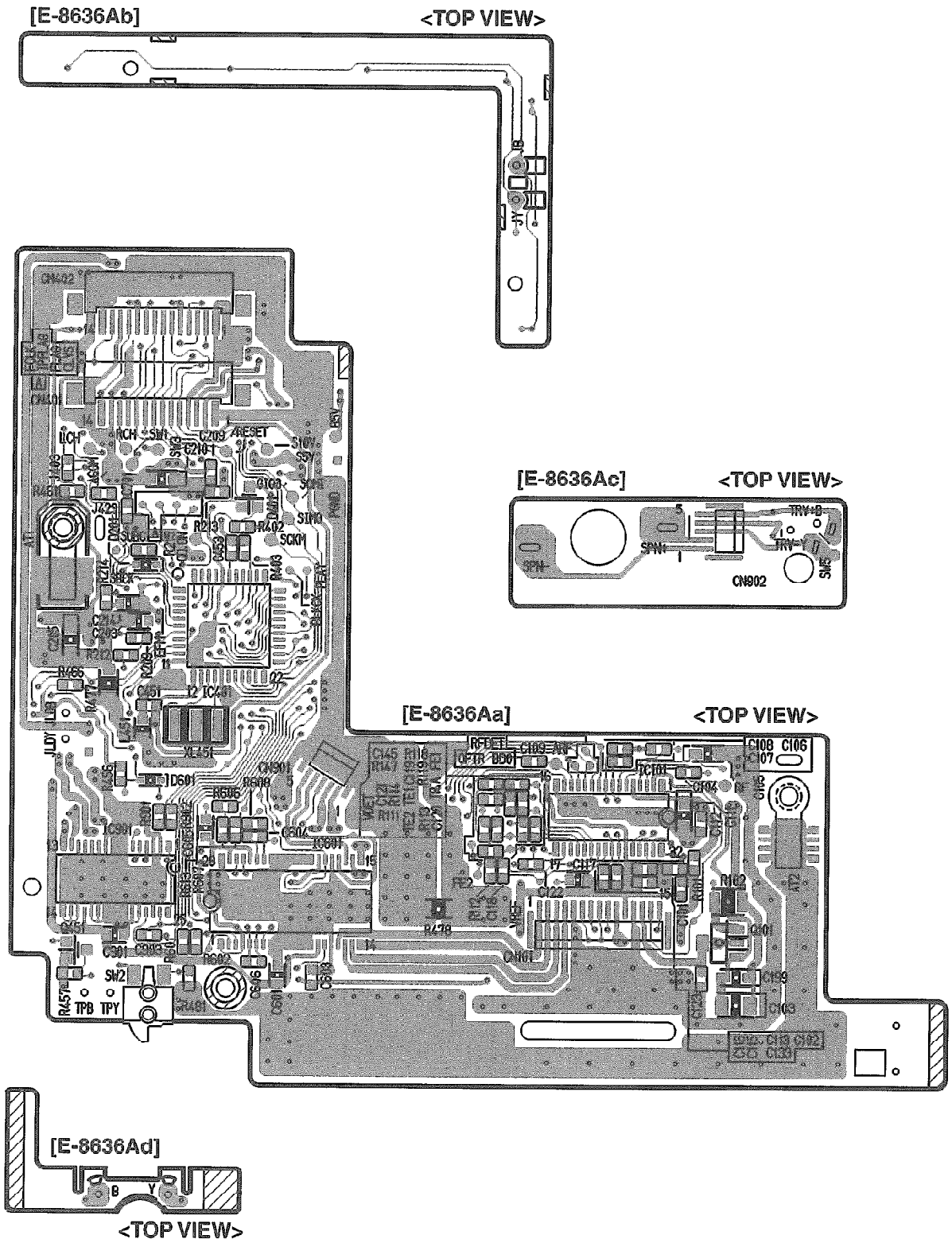


16.3. Main Block (Bottom View)

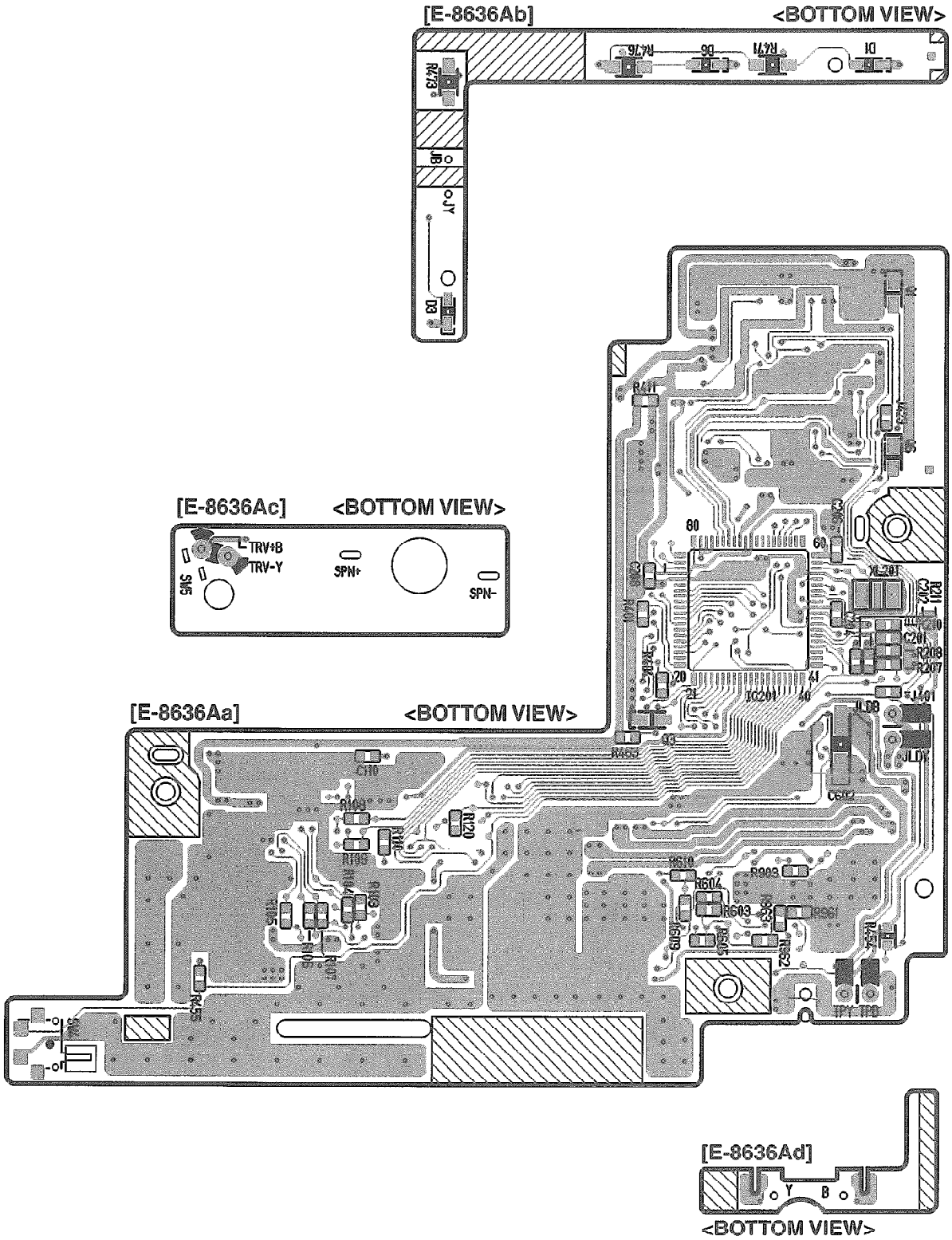
<BOTTOM VIEW>



16.4. CD Servo Block (Top View)

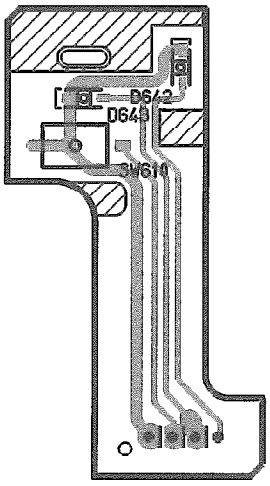


16.5. CD Servo Block (Bottom View)

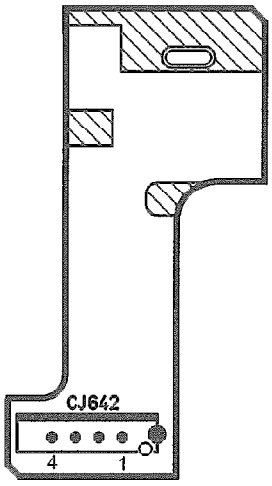


16.6. Sub. Block

[E-8497Bb]

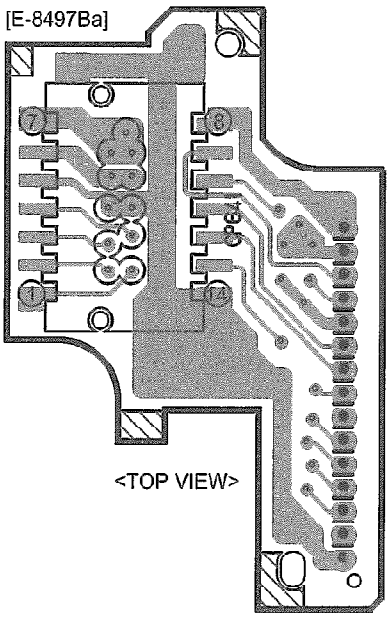


<TOP VIEW>



<BOTTOM VIEW>

[E-8497Ba]



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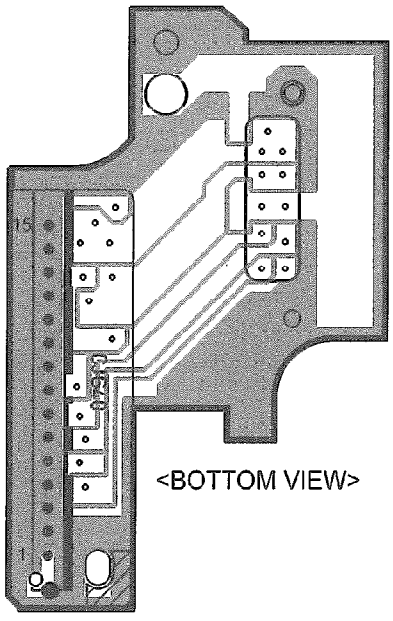
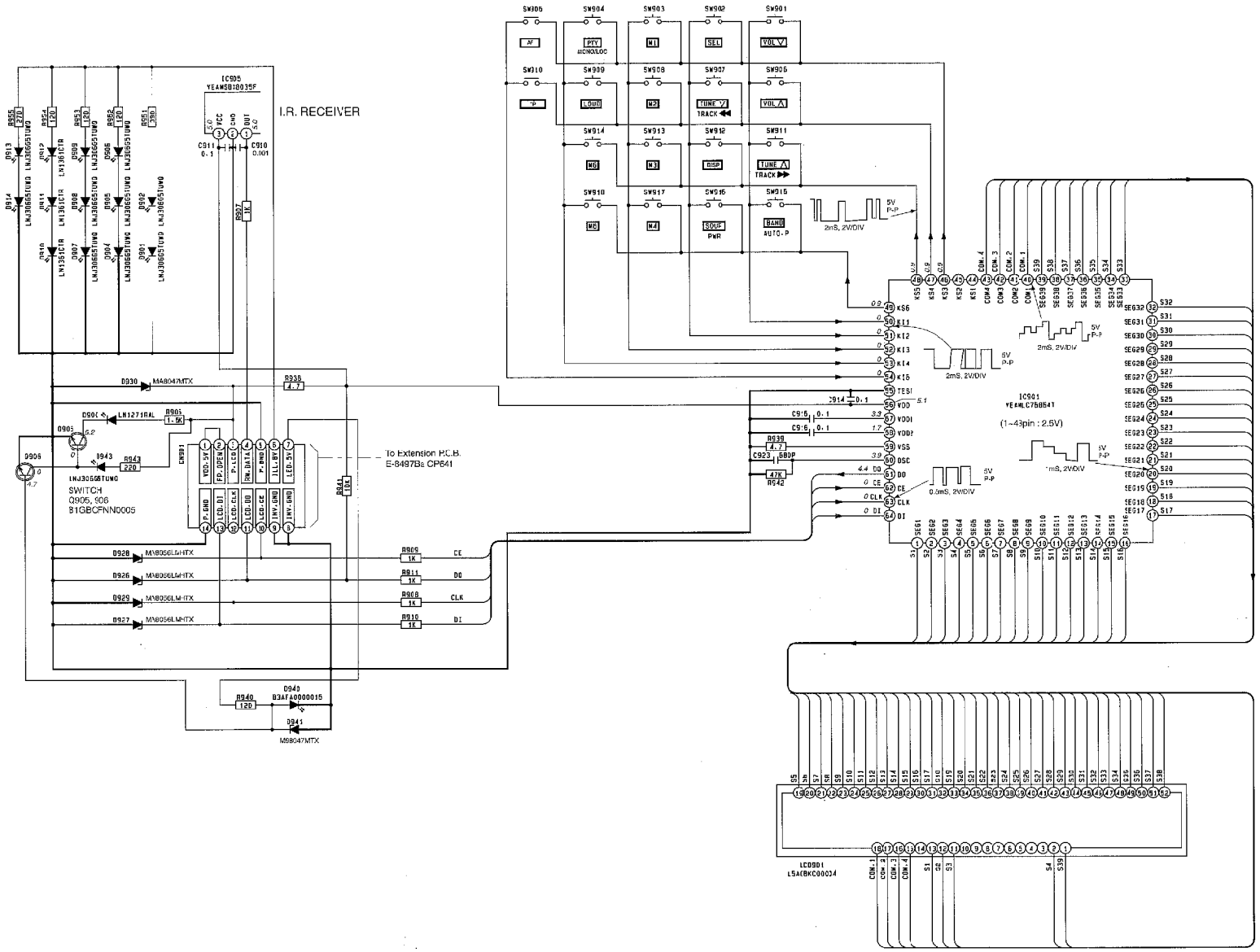


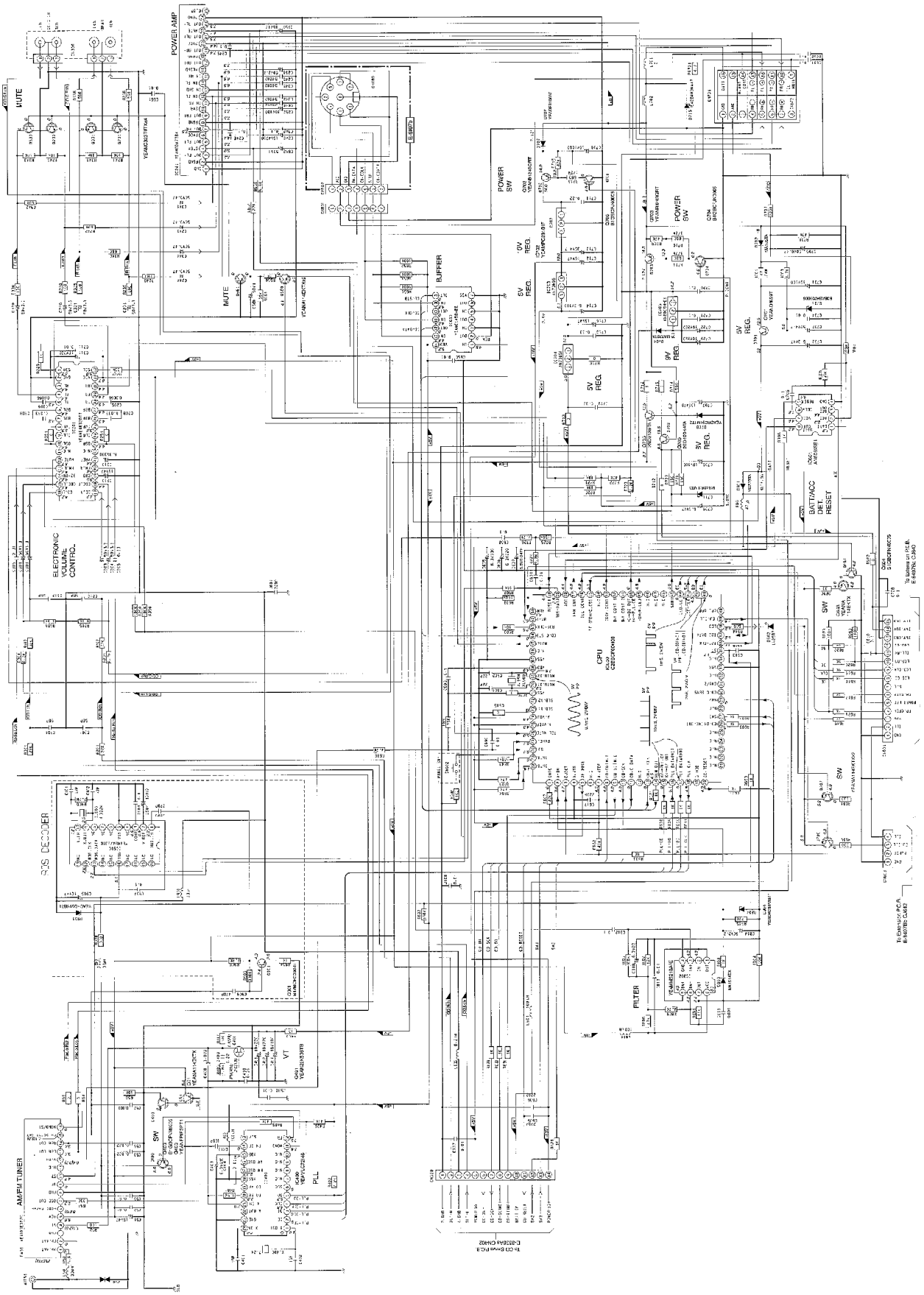
<BOTTOM VIEW>

17 SCHEMATIC DIAGRAM

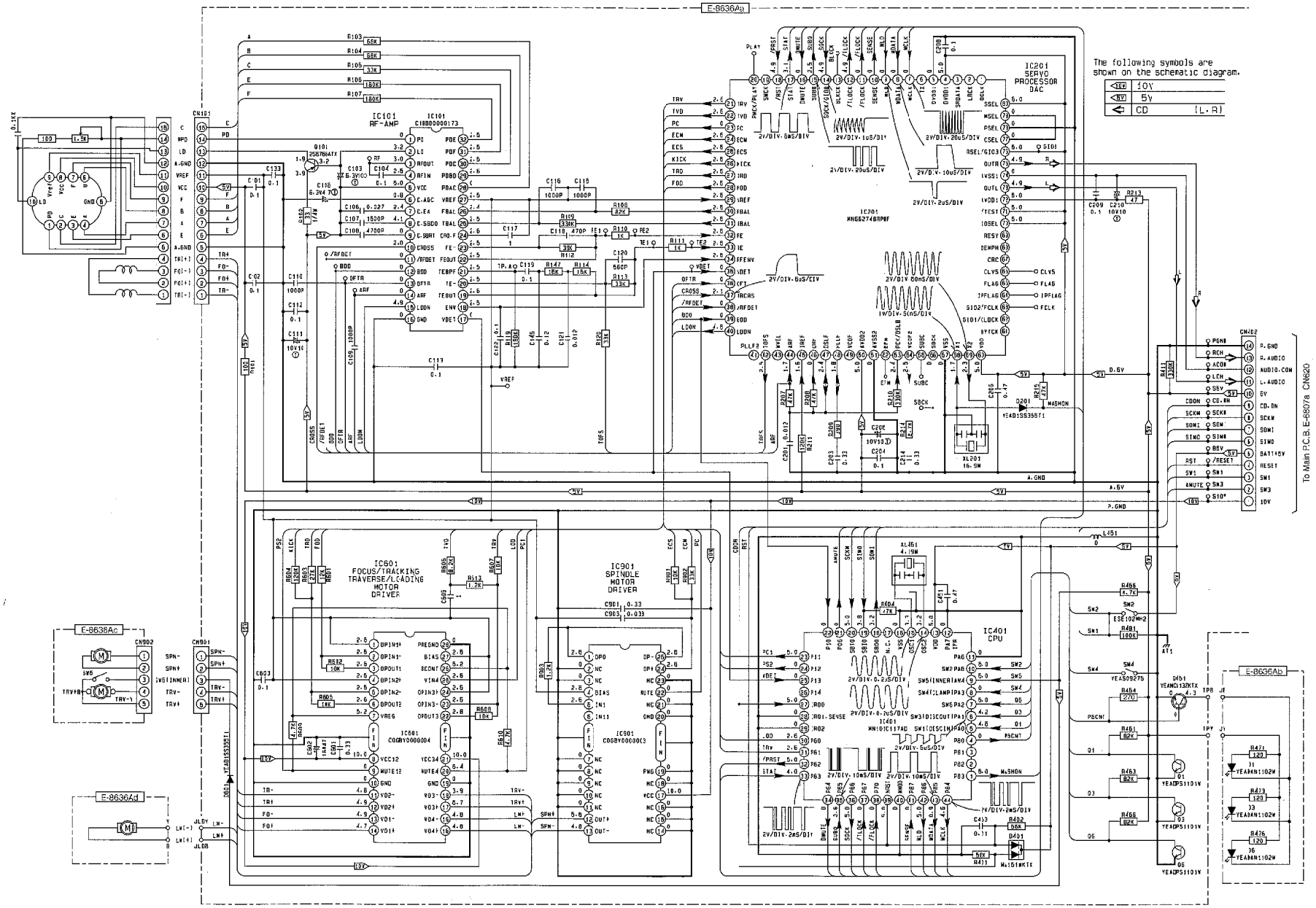
17.1. Display Block



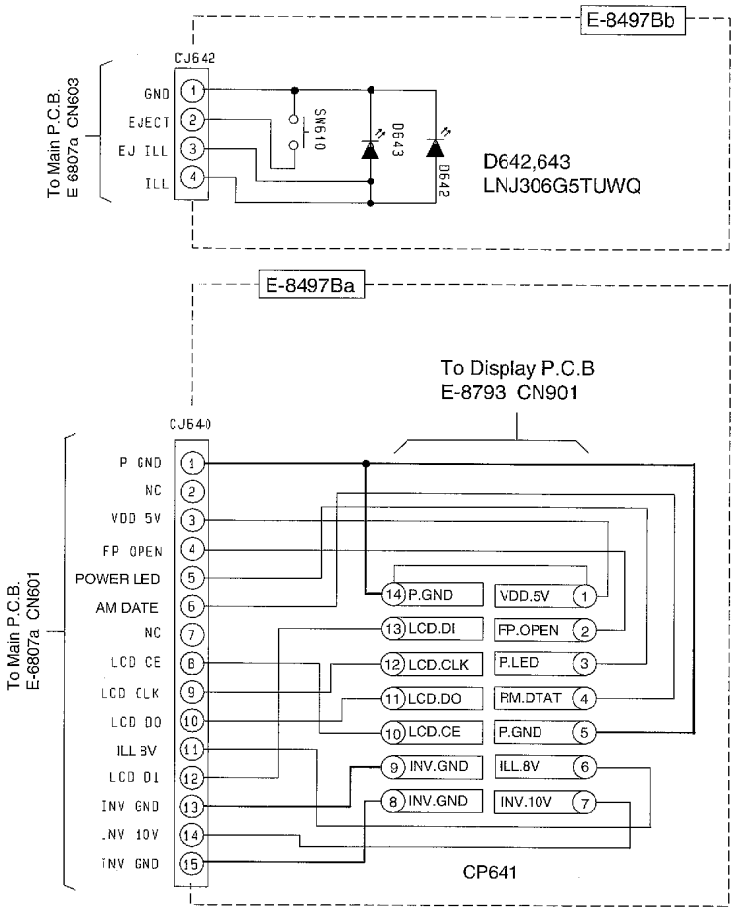
17.2. Main Block



17.3. CD Servo Block



17.4. Sub. Block



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